Cloud Publications
International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy
2014, Volume 3, Issue 1, pp. 162-174, Article ID Med-118
ISSN: 2320 – 0251

Review Article | Open Access

Dalak (Massage) in Unani Medicine: A Review

Kamal Ahmed[1], Najeeb Jahan[1], Mohd Aslam[2], Heena Kausar S.[1], Mohd Khalid[2], and Hamid Ali[3]

[1]Department of Ilmul Advia, National Institute of Unani Medicine, Bangalore, Karnataka, India
[2]Department of Moalijat, National Institute of Unani Medicine, Bangalore, Karnataka, India
[3]Department of Ilaj Bil Tadbeer, National Institute of Unani Medicine, Bangalore, Karnataka, India

Correspondence should be addressed to Kamal Ahmed, drkamalsahil85@gmail.com

Publication Date: 27 January 2014

Article Link: http://medical.cloud-journals.com/index.php/IJAAYUSH/article/view/Med-118

Abstract Regimental therapies are mostly non medicinal procedures for health promotion in *Unani* system of medicine. Several regimens have been used by *Unani* physicians since ancient time, among which *Dalak* (massage) is the most common and widely practiced regimen that is used for restorative, preventive as well as for therapeutic purposes. Massage which has been used in almost all the civilizations in the history, evidence of this is present in several manuscripts. According to Hippocrates (460 BC–370 BC), the father of medicine, massage, balanced diet, exercise, rest and fresh air are essential to maintain health of a person. According to *Ibne Rushd*, massage is a type of exercise used for removal of toxins or waste metabolites from the body. In *Unani* medicine, *Dalak* is one of the very important regimes among the procedures of *Ilaj Bil-Tadbeer* (Regimental therapy) for neurological and musculoskeletal disorders. A number of *Unani* physicians recommended *Dalak* as preventive as well as curative measure. Historical background of *Dalak,* timing, duration, its types and importance, mechanism of action, recent scientific reports and the disorders in which massage can be used have been discussed in this paper.
Keywords *Dalak; Massage; Unani Medicine; Musculoskeletal; Neurological Disorders*

1. Introduction

The *Unani* system of medicine is one of the oldest systems of medicine that is practiced in India and all over the world. The basic principles of this system rely on the concept put forward by Hippocrates and Galen. This system, earlier known as "*Galenics*", later known as *Unani Tibb*, (*Unani* being the Arabic word for "Greek" and *Tibb* for "medicine" [1]. Before 400 BC, the medicine was surrounded by the imagination of magic, spirits and superstition. Hippocrates (460-377 BC) was the person who had freed medicine from superstitious believes and gave the basis for the foundation of medicine [2, 3, 4]. According to his concepts human body is composed of four *Akhlaat* (Humors) viz. *Dam* (blood), *Balgham* (phlegm), *Safra* (yellow bile) and *Sauda* (black bile). The temperament of a person can accordingly be *Damwi* (sanguine), *Balghami* (phlegmatic), *Safrawi* (choleric) and *Saudawi* (melancholic) depending on the presence and combination of humors. According to *Unani* theory, the

humors and medicinal plants have their own temperaments. Any change in quantity and quality of the humors, bring a change in the health status of the human body. Hence a proper balance of humors is required for the maintenance of health and for the prevention of disease [3, 5, 6, 7].

The concept of *Tabiyat* (nature) has a vast and unique meaning in itself and is considered to be the best physician who is responsible for the maintenance of equilibrium of four humors of the body [3, 8].

In *Unani* system of Medicine, to restore the health, various types of treatment are employed such as *Ilaj-bil-Tadbeer* (Regimental therapy), *Ilaj-bil-Ghiza* (Diet therapy), *Ilaj-bid-Dawa* (Pharmacotherapy) and *Jarahat* (Surgery) [9, 10].

Regimental therapies are mostly non medicinal procedures for health promotion in *Unani* medicine. Several regimens have been used by *Unani* physicians, among which *Dalak* (massage) is the most common and widely practiced method that is used restorative, preventive as well as therapeutic purposes.

The word 'massage' is derived from the Arabic word- Mass (to touch), or from the Greek word- Massein (to knead). Hippocrates used the term anatripsis, meaning to rub down and this was translated into the Latin 'frictio' meaning friction or rubbing [11]. French colonies in India first used the term "massage" during 1761-1773 and included it for the first time in 1812 in French-German dictionary. According to Oxford dictionary, in 1879 this word entered in the English literature [12].

2. Historical Background

The history of *Dalak* (Massage) dates back to the starting of human civilization. The massage was used principally to expel the evil spirit from the body of the patient in Babylon and Assyria. In eastern cultures, massage has been practiced since ancient times. Massage is an oldest practice, which was used almost all the civilization in the history and evidence of this are present in the several manuscript which are given below [11, 13].

Year	Concept and Contribution
2nd millennium BC	The 1st description of massage is found in *Ayurveda*– medical part of *Atharvaveda*
2700 BC	Description of massage found in a Chinese book *"The Yellow Emperor's Classic of Internal Medicine"*
Asclepius (1200 BC)	Asclepius used massage for relieving pain
907 – 619 BC	First time Tang Dynasty recognized massage as a part of medical practice
Hippocrates (460 – 375 BC)	Buqrat has prescribed a combination of massage, proper diet, exercise, rest, fresh air and He was the first man to discuss the qualities and contraindications of Massage
Celsus (1st century)	Celsus wrote an eight volume book *"De Medicine"* and in the 7th volume he clearly deliberated the use of rubbing and massage in prevention and Therapeutics of some ailments
Galen (125 – 195 AD)	Galen wrote about 16 books related to exercise and massage
Avicenna (980 – 1037 AD)	The great physician Avicenna discussed the various types of *Dalak* in the 1st Vol. of "C*annon of Medicine"*
Ambroise Pare (1510 – 1590 AD)	Advised the application of massage to surgical patients
Fabricus Ab Aquapendente (16th century)	Fabricus was the teacher of William Harvey wrote a book on massage
Nicholas Andry (1741 AD)	Nicholas Andry in his book *"L'Orthopedie"* has mentioned effects of massage on the Circulation and the skin colour

Per Henrik Ling(1776 AD)	His system (Swedish massage) was based on the study of Gymnastics and Physiology and on the techniques acquired from China, Egypt, Greece and Rome
Estraderf (in 1863 AD) and Mezger (in 1868 AD)	Two doctoral Theses were written on massage

3. Unani Concept of Massage

Dalak is one of the very important regimes among the procedures of *Ilaj Bil Tadbeer* for neurological and musculoskeletal disorders.

In *Unani* medicine, *Dalak* is considered as the method where pressure or friction, kneading, rubbing, tapping, pounding, vibrating or stimulating against the external soft parts of the body with hands or other objects like rough cloth with or without oils, creams, lotions, ointments or other similar preparations [13]. Hippocrates (460 BC–370 BC), the father of medicine, stated that "The physician must be experienced in many things, but assuredly also in rubbing, for things that have the same name have not always the same effects. For rubbing can bind a joint that is too loose, and loosen a joint that is too rigid, rubbing can bind and loosen". He prescribed a combination of massage, proper diet, exercise, rest, and fresh air etc. to restore the health [14].

According to Ibne Rushd, massage is a type of exercise and used for the removal of waste metabolites of digestion (*Hazme Uzwi / hazme akheer*) [15]. Number of *Unani* physicians advocates the use of *Dalak* for the preventive as well as the curative purpose in various diseases. They recommended several varieties of *Dalak* e.g. *Dalak e sulb* (hard massage), *Dalak e layyin* (soft massage), *Dalak kaseer* (prolonged massage), *Dalak moatadil* (moderate massage) etc. Hard friction or massage is *Mufatteh-e-Sudad* (deobstruent) and makes the body firm. Soft massage is sedative and relaxes the body while prolonged massage reduces the fat of the body; moderate massage develops the body as well as improves and maintains blood circulation of the particular organ; rough friction with a rough cloth (*Dalak khashin*) enhances vasodilatation of the particular organ etc. [16].

4. Mechanism of Action of Massage

According to Unani Medicine the mechanism of action of *Dalak* (Massage) is based on holistic approach of two fundamental concepts i.e. *Tanqiyae Mawad* (Evacuation of morbid humour) and *Imalae Mawad* (Diversion of humour). *Tanqiyae Mawad* means the resolution and excretion of morbid humors and excess fluids from the body, thereby maintaining the homeostasis in the quality and quantity of four bodily humors, which is actually responsible for the maintenance of normal health. *Imalae Mawad* refers to the diversion of the morbid fluids from the site of affected organ to the site where from it is easily expelled out from the body tissues. It also induces sedation, analgesia and increases blood circulation [17].

5. Classification of Massage

In Unani system of medicine various kinds of massage has been recommended for different purposes. **Ibne Sina** and **Ibne Rushd** have classified *Dalak* as *Dalak Baseet* and *Dalak Murakkab* and they again divided the *Dalak Baseet* on the basis of kafiyat (quality) and kammiyat (quantity) into 6 types [15, 16].

5.1. Dalak Baseet (Single Massage)

On the basis of **Kaifiyat** (pressure exerted on the part) and **Kammiyat** (duration of massage) it is again divided into six types:

On the basis of **Kaifiyat**

(i) ***Dalak Sulb*** *(Hard Massage)*
It is a type of massage where firm pressure is applied while stroking is done with hands.

(ii) ***Dalak Layyan*** *(Smooth Massage)*
In this type, massage is done slowly and softly with hands, without exerting much pressure.

(iii) ***Dalak Moatadil*** *(Moderate Massage)*
In this type of massage pressure is applied moderately between Sulb and Layyan.

On the basis of **Kammiyat**

(iv) ***Dalak Kaseer*** *(Prolonged Massage)*
This type of massage is done for longer duration.

(v) ***Dalak Qaleel*** *(Short Massage)*
This type of massage is done for shorter duration.

(vi) ***Dalak Moatadil*** *(Moderate Massage)*
The duration of this massage is in between Kaseer and Qaleel.

Dalak Murakkab (Compound Massage)
Dalak Murakkab is the combination of different types of Dalak and it is divided in to nine types [15, 16].

- Dalak Sulb Kaseer
- Dalak Layyan Kaseer
- Dalak Moatadil Kaseer
- Dalak Sulb Qaleel,
- Dalak Layyan Qaleel
- Dalak Moatadil Qaleel
- Dalak Sulb Moatadil
- Dalak Layyan Moatadil
- Dalak Moatadil Moatadil

Apart from the above varieties of massage there are also few other types of massage like:

Dalak Khashin (Rough massage)
This type of massage is done with a rough piece of cloth. It draws the blood rapidly to the surface.

Dalak Amlas (Gentle Massage)
This type of massage is carried out softly with hands or soft piece of cloth. It increases blood flow in the treated area.

Dalak Istedad (Preparatory Massage before Starting Exercise)
(Qawi, zaeef, moatadil, taweel, qaseer, and moatadil) it is a special type of massage which is done gently in the beginning and then vigorously towards the end. It is done before exercise in order to prepare the body for undergoing different movements during exercise.

Dalak Isterdad (Relaxing Massage)
It is also known as Dalak Musakkin. It is done towards the end of exercise and should be carried out gently and in moderation, preferably with oil [16, 18].

6. Purpose of Dalak

After describing the various kinds of *Dalak,* Ibne Sina has also mentioned the purpose of different types of *Dalak*:

- To make the body firm, if it is loose and flabby; to soften it, if the body is hard and vice versa;
- To eliminate the *rutoobat* (fluid) from the body that is left after purgation;
- To develops the body as well as to improve and to maintain blood circulation of the particular organ;
- For dissolution of *riyah* (morbid gases) from the body;
- To remove the *barid mizaj* (cold temperament);
- For *imalah* (to divert the matter from one organ to another);
- Massage is done by using oil with an aim to retain the *rutoobat* (moisture of the body);
- Massage is done to relieve pain [19].

7. Time of Massage

In *Unani* literature physician has emphasized more on the time of massage. It is very important to know when massage has to be done for better benefits and good results, and also to avoid the adverse consequences. Time of massage depends on the type and nature of massage required.

According to *Unani* literature

- Massage should not be done immediately after taking food.
- Massage should not be done in empty stomach.
- It should be done in the morning.
- It can also be done in the evening but 3-4 hours after lunch.

Time of massage also differs according to changes in weather, in *Mausam e rabee* (Spring season) and *Mausam e khareef* (Autumn) massage should be done at Noon, in *Mausam e Saif* (Summer season) massage should be done in the morning, and in *Mausam e Shitaa* (Winter season) in afternoon [19].

8. Duration of Massage

In *Unani* literature duration of massage is not exactly mentioned in terms of minute or hours, but it has been extensively discussed depending upon various conditions as follows:

- Strength of organ,
- *Mizaj* of organ to be massaged
- Type of oil used

- *Mizaj* of disease
- *Mizaj* of person
- Condition of disease (acute, sub-acute, chronic)
- Condition of patients (obese, lethargic, lean, healthy)
- Seasons
- Desired outcome
- Temperature of the massage cabin

8.1. Other Factors

- In healthy individuals with no pains just for relaxation: massage for 30 to 40 minutes;
- In pains and aches: for longer duration;
- In physically weak: 15-20 minutes in beginning slowly then increased to 30-35 minutes;
- For those who are habitual to it, daily massage: 25-30 minutes;
- Old people need massage for one hour or more [12].

9. Physiological Effects of Massage

9.1. Increases Venous and Lymphatic Flow

According to Paikov (1986), the human body contains 1200-1500 ml of lymph moving at the speed of 4 mm/sec and massage increases these to eight folds. The contraction of the skeletal muscles compresses the blood vessels and exerts a pressure on the fluid present inside. This increase in intravascular pressure stimulates the contraction of the smooth muscles present in the wall of the vessels. Contraction of smooth muscles further increases the pressure inside the vessels. When this pressure increases beyond the threshold, the valves open up and the fluid moves into the next segment.

9.2. Increases Arterial Blood Flow to the Muscle and Skin:

A moderate, consistent and definite increase in the arterial flow is observed.

9.3. Assists Removal of Secretions from Lungs

Percussion and vibration techniques of massage assist the removal of secretions from the larger airways.

9.4. Assists in Removal of Wastes Products of Metabolism

Massage speeds up the lymphatic and venous flow, which promotes rapid disposal of the waste products of metabolism.

9.5. Increases Excitability of Alpha Motor Neuron

The tone of muscle is maintained by the activity of muscle spindle. Muscle spindle contains the intrafusal fibres supplied by gamma motor neurons and lies parallel to the extra-fusal fibres of the muscles that are supplied by the alpha motor neurons. The capsules of muscle spindle are attached with the extra-fusal fibres. Any stretch to the muscle spindle, either by activation of gamma motor neuron or by passive mechanical procedures, activates the reflex arc. The impulse travels via the afferent nerve fibers and propagates towards the spinal cord. Some impulses are mono synaptically

transmitted to the alpha motoneuron of the same muscle. The activation of alpha motor neuron produces contraction of the extra fusal fibres of the muscles.

9.6. It has been claimed that petrissage or massage in which muscles are kneaded can exert an inhibitory effect on motor neuron. Deep rhythmic massage with pressure, over the insertion of muscles has been proved effective in some cases of spasticity.

9.7. Modulates psychosomatic arousal.

9.8. Breaks the soft tissue adhesions.

9.9. Accelerates various metabolic processes.

9.10. Increases gaseous exchange across pulmonary capillaries.

9.11. Increases activity of sweat and sebaceous glands [11, 20, 21].

10. Indications of *Dalak*

In *Unani* System, *Dalak* is recommended for both preventive and therapeutic purposes.

10.1. For Preventive Application

In Children

Children start walking in their 3rd year of life (early days of childhood). They should be massaged lightly when they wake up from the sleep in the morning and be given bath [15]. It boosts immunity and endows strength to the bodily organs.

In Youngsters

On completion of digestion of meal the whole body should be massaged slowly with *Roghan-e-Zaitoon Shireen* (sweet olive oil). The purpose of this application is to prepare the body for exercise, as exercise before massage leads to the hardness of skin pores and results in the stagnation of waste metabolites which should excreted through skin. Oil dissolves the waste metabolites and evacuates them. After exercise, body is massaged with firm hands for two purposes: (1) to evacuate the stagnant waste metabolites in subcutaneous tissues. (2) To make body muscular and strong. Galen has said that hands should be moved in such a way that it simultaneously covers the whole body so as to dissolves the morbid materials [15].

In Elderly Person

In elderly persons moderate massage is very effective if done with oils, it may be done twice a day in lean and thin persons [16].

In Pregnant Women

It is strongly recommended to massage back, abdomen and pubic area, few days before the delivery with *Roghan-e-Zanbaq* and *Roghan-e-Kheeri* as it helps in easy passage of foetus at the time of delivery [8].

10.2. For Therapeutic Application

In the Treatment of Pain

To relieve pains the affected part of the body should be massaged softly for a longer duration [16].

Pain Due to Galba-e-Buroodat (Excessive Cold)

Massage the affected part with *Roghan-e-Nargis/Roghan-e-Sosan* mixed with *Dhatoora oil* [22].

Pain Due to Galba Haraarat (Excessive Heat)

Dalak should be done with *Roghan-e-Hina* [22].

Acute Neurologic Pain

Turkish bath, local massage of *Roghan-e-Sosan, Roghan-e-Nargis* and *Roghan-e-Gaar* relive the neurologic pain and flaccidity [22].

Headache

In *Suda Haar,* apply *Roghan-e-Banafsha* on soles and in *Suda Baarid* apply lukewarm oils on the scalp and massage for few minutes [23].

10.3. Nervous System

Hemiparesis

Massage the affected side of the body with *Roghan-e-Qust* daily [8].

***Laqwa* (Bell's palsy/ facial paralysis)**

Massage should be done firmly with *Roghan-e-Qust* on face and cervical vertebrae [8]. If *Laqwa* (facial paralysis) is due to *Yaboosat*, massage the head with *Roghan-e-Banafsha* and cervical vertebrae with *Roghan-e-Khatmi* [22]. The ancient Greek physicians used sore vinegar boiled with mint or Sa'tar to massage on facial muscles, temporal area, neck and back for the treatment of *Laqwa*. The logic behind this therapy was that vinegar by its far-reaching effect removes the thick humors struck in the muscles [22].

***Tashannuje Muzmin* (Chronic Spasm)**

Apply lukewarm *Roghan-e-Banafsha* or *Roghan-e-Kaddu* on affected parts [8].

***Sarsaam* (Meningitis)**

Massage the scalp with vinegar mixed with *Roghan-e-Banafsha* and milk [8].

***Irqun Nasa* (Sciatica)**

Apply *Roghan-e-Kunjad* in the portions inflicted with the symptoms [18]. Local application of *Roghan-e-Sosan* is also described by Razi [8].

***Sakta* (shock)**

In shock apply warm tempered oil with sulphur on the whole body [22].

***Sidr* (vertigo)**

At the time of attack hold the limb tightly and massage them [22].

***Malikholiya* (Melancholiya)**

Massage the ribs with olive oil and *Roghan-e-Sosan* softly with hands on the abdomen [22].

***Muraaqiyya* (A type of Melancholiya)**

First give bath and then apply *Roghan-e-Banafsha* and *Roghan-e-Gul* on the scalp [22].

***Fasad-e-Zik'r* (Dementia)**

If it is resulted from excessive *Buroodat* and *Yaboosat*, then apply *Roghan-e-Khiri* and *Roghan-e-Sosan* on the scalp daily for the best results [22].

***Ikhtelaaj* (Fasciculation)**

This is commonly caused by excessive intake of chilled beverages, cold producing agents, cold weather and cold temperaments. So, on its infliction, massage the face with *Roghan-e-Farbiyoon* and *Roghan-e-Aaqar Qarha* [22] or massage with olive oil mixed with sulphur [24].

***Sara* (Epilepsy)**

During episodes of fits, massage the spasmodic body parts with oils, water and emollients. At first massage the whole body, then lower portion of head and cervical vertebrae [22].

***Mustarkhi Mafasil* (Flaccid Joints)**

Massage with *Roghan-e-Qust* as it has potential effect in the management of flaccid joints [22]. *Roghan-e-Qust* mixed with *Roghan-e-Zaitoon* shows very good results [22].

***Istirkhaa* (flaccidity)**

Apply *Roghan-e-Sosan* and *Roghan-e-Nargis* daily. It should be stopped when the affected part turns red. Besides this, massage with Olive oil, *Natroon* and *Qand* is said to be very effective in its management [22].

The Acute Management of Paralysis

Massage the body with *Roghan-e-Qust* and *Aaqar Qarha* with firm hands on affected parts of the body [22] massage the flaccid and paralysed joints with *Roghan-e-Qust, Farbiyoon* and *Miya* firmly till they turn red [22]. *Roghan-e-Qust* should be applied on the insertion points of the flaccid muscles [22].

***R'asha* (Tremor)**

According to Descorides, taking *Jund bedastar* orally or rubbing it on the manifested parts is very useful. Galen has also used the same for the tremor patients [22].

***Khidr* (Paraesthesia)**

In *khidr*, massage the diseased part with *Roghan-e-Farbiyoon* mixed with Castor oil and hot wax [22].

***Tashannuje Haad* (Acute Spasm)**

Acute spasm can be managed by bringing the extended and spasmodic parts to their original positions and massage them with *Roghan-e-Suddab* and *Roghan-e-Qisa-ul-Himaar* [22] or massage with olive oil mixed with sulphur [24].

Jund bedastar is the drug of choice in all the diseases of nervous system which are caused by excessive *Buroodat*. Its oil should be utilized for *dalak* on the whole body as it stimulates the motor system [22].

10.4. Respiratory System

***Nafsuddam* (Haemoptysis)**

Massage with lukewarm astringent oils on the chest to arrest the bleeding. If it is caused by *Nazlavi* material-morbid phlegm collected in the head, then apply lukewarm oil or *Roghan-e-Qisaa-ul-Hemaar* [22].

***Zeequnnafas* (Asthma)**

If the cause of ***Zeequnnafas*** (Asthma) is *yaboosat* (dryness), then massage the lateral parts of the thorax with *Roghan Naardeen, Roghan Gaar*, *Roghan suddab* and hot temperament oils to alleviate the symptoms of asthma [25].

10.5. Musculoskeletal System:

***Niqras* wa *Wajaul mafasil* (Gout & Arthritis)**

Soft massage daily with *Roghan-e-Sosan* is very useful in these conditions [8].

Waja-ul-Unq* (Cervical Spondylosis, Frozen Shoulder*)

Massage the affected areas with *Roghan-e-Shibbat, Roghan-e- Baboona* and *Roghan-e-Murakkab* [24].

Waja-uz-Zohar and Waja-ul-Warik* (Backache*)

Apply *Roghan-e-Joz Ma'sil, Roghan-e-Tukhm-e-Injeer, Roghan-e-Qurtum* and *Roghan-e-Qust* firmly with hands [26].

Wrist Joint Pain /Carpel tunnel syndrome

Local application of *Roghan-e-Haft Barg, R.babooba and R. murakkab* softly with hands is very useful in such pain [16].

11. Miscellaneous

For the Generalized Weakness

The whole body should be massaged softly with hands daily in the morning with *Roghan-e-Zaitoon* (olive oil) and hot wax. It rejuvenates as well as awakens the dormant *Quwatt-e-Jaaziba* (absorbant faculty) of the body parts [16].

In Swollen Limbs

Boil *Zoofa Khush'k, Kamoon* and *Sa'atar* in *Roghan-e-Naardeen* and massage on the affected limbs [27].

In Sexual Disorders

It is very effective to do massage on male sexual organ with certain oils like: *Roghane Soosan*, *Roghane Zambaq, Roghane Nargis, roghane yasmin, Roghane Kheeri, Roghan Punba Dana* with *Aqar Qarha* etc. in different conditions [26].

12. Scientific Repots

- Zarnigar *et al.* conducted a study entitled, "role of Dalak and *Riyazat* in the rehabilitation of patients with post stroke hemiplegia", the results of Dalak showed significant effect in improvement of Fugl Meyer upper limb score [28].

- A study was carried out by Haji Amanullah *et al*. "to evaluate the efficacy of massage with *Roghan Seer* in motor recovery in hemiplegia secondary to ischemic stroke". They reported that the massage with test drug has significant improvement in voluntary movements and basic mobility of the lower limb [29].

- Lone A.H. *et al.* in a case study have evaluated the efficacy of massage with different oils in various musculoskeletal and nervous disorders; they concluded that massage may be used effectively in various disorders specially musculoskeletal and nervous disorders where medical treatment is of less value [17].

- A study was conducted on 'Effect of *Dalak Layyan kaseer* with *Roghane Shibbat* in slowing the progress of *Wajaul Unuq* (cervical pain)' in NIUM Hospital. The regimen was found highly significant both statistically and clinically in relieving acute and chronic cervical pain [30].

13. Conclusion

Dalak which is still popular among people throughout the world as a cosmetic and relaxant therapy in spa and beauty centers, very few know about its therapeutic values. The main purpose of this article is to make aware and update the knowledge of ancient art of massage of *Unani* medicine, beginning from history to the present era. From the above discussion it can be concluded that *Dalak* plays an important role in maintaining normal health, it is beneficial in both preventive and curative regimen. *Dalak* is used effectively for the management of musculoskeletal and nervous disorders where medical treatment is of less value. As most of the *Unani* physicians has described and mentioned about the timings, types and purpose of *Dalak*, its importance and how it differs from person to person according to age and need. By *Tanqiyae Mawad* (Evacuation of morbid humour) and *Imalae Mawad* (Diversion of humour) *Dalak* removes toxins from the body and enhances the blood circulation and there by helps in restoration of health. The efficacy of *Dalak* have been proved by many scientific studies, however still more studies should be conducted to validate its mechanism of action by modern parameters with different techniques and pressures applied in different types of *Dalak*.

References

[1] Anonymous 2010: *Benchmarks for Training in Traditional/Complementary and Alternative Medicine,* Geneva Switzerland WHO; 1, 3.

[2] Nigrami M.S.H., 2004: *Tareekhe Tibb.* 4th Ed., NCPUL, New Delhi, 79.

[3] Lois N.M., 1992: *A History of Medicine.* Marcel Dekker, Inc. New York, 66-74.

[4] edoqs, *Introduction of Unani Pathy*. http://www.unaniherbal.org/course/Intro%20of%20Unani.pdf. (Cited on 18-09-2013)

[5] Anonymous, 1973: *Theories and Philosophies of Medicine*. 2nd Ed., IHMMR, New Delhi, 62.

[6] Ahmed S.I., 1980: *Introduction to Al-Umoor Al-Tabiya'h.* 1st Ed., Saini Printer, Pahari Dhiraj, Delhi, 76.

[7] edoqs, http://indianmedicine.nic.in/writereaddata/linkimages/4774085844introduction.pdf (cited on 8-9-2013).

[8] Razi A.B.M.B.Z., 1991: *Kitab al Mansuri.* CCRUM, New Delhi, 180, 320, 322-24, 392.

[9] Ewaz K.N., 2009: *Kulliyat-e-Nafeesi* (Urdu Translation by Hakim Kabeeruddin), Idara Kitab-al-Shifa, New Delhi, 424-427.

[10] *Unani Medicine: Implications and Applications.* http://botmatics.com/beta/demos/hamdard/paperspdf/UNANI%20MEDICINE%20Implications%20and %20applications.pdf. (Cited on 8-9-13).

[11] Carsor P.M., 2002: *Handbook of Clinical Massage.* 2nd Ed., Elsevier, Delhi, 57-91.

[12] Tanwir M.A., et al. *Dalk (Therapeutic Massage) & Their Indication for Musculoskeletal Disorder in Unani Medicine*. International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy. 2013. 2 (1) 59-70.

[13] Ahmad B. and Akhtar J. *Pharmacogonosy Reviews.* Review Article Unani System of Medicine. 2002. 1 (2) 210-212.

[14] Young S.R., 2009: *Massage Therapy.* Utah, Woodland Publishing, USA, 1-23.

[15] Rushd I., 1987: *Kitab -al-Kulliyat* (Urdu Translation). CCRUM, New Delhi, 346, 350-51.

[16] Sina I., 2007: *Al-Qanoon Fit Tibb* (Urdu Translation by Kantoori). Idara Kitab-al- Shifa, New Delhi, 28, 29, 120-126, 150-154, 211-212, 232, 586, 592, 1118-19, 1441.

[17] Lone A.H., et al. *Role of Massage Therapy in The Management and Prevention of Diseases: A Case Series of Medicated Massage.* International Journal of Research in Ayurveda and Pharmacy. 2011. 2 (5) 1474-1477.

[18] Majoosi A.I.A., 1889: *Kamil-us-Sanaa* (Urdu Translation by Kantoori). Munshi Nawal Kishore, Lucknow, 232, 324-28, 465-68, 504.

[19] Sina I., 2006: *Kulliyat-e-Qanoon* (Urdu Translation by Hakim Kabeeruddin). Eijaz Publishing House, New Delhi. 147-54.

[20] Sinha A.G., 2004: *Principles and Practice of Therapeutic Massage.* Jaypee Brothers, Delhi, 8-20, 109.

[21] Hollis M., 2002: *Massage for Therapists* 2nd Ed., Blackwell Science Ltd. Australia. 30-44.

[22] Razi A.B.M.B.Z., 1996: *Kitab-al-Hawi.* Vol. I. CCRUM, New Delhi, 25, 29, 30, 32-33, 35, 39, 40, 42-44, 48, 51, 72, 83, 99-100, 116-117, 130, 137.

[23] Tabri R., 2002: *Firdaus-al-Hikmat.* Faisal Brothers, New Delhi, 153.

[24] Zohar A.M.A.M., 1986: *Kitab-al-Taiseer Fil Madawa wa Tadbeer.* CCRUM, New Delhi, 79, 88, 211.

[25] Razi A.B.M.b.Z., 1998: *Kitab-al-Hawi.* Vol-VI. CCRUM, New Delhi, 15-16.

[26] Khan M.A., 2011: *Ikseer-e-Aazam* (Urdu Translation by Hakim Kabeeruddin). Idara Kitab-al-Shifa, New Delhi, 15-16, 740-758.

[27] Anonymous, 1998: *Al-Moalajat Al-Buqratiya.* CCRUM, New Delhi, 257.

[28] Zarnigar et al. *Role of Dalak (Massage) and Riyazat (Exercise) in the Rehabilitation of Patients with Post Stroke Hemiplegia.* Indian Journal of Traditional Knowledge. 2012. 11 (4) 738-744.

[29] Amanullah H., et al. *Efficacy of Massage with Roghan Seer in Motor Recovery in Hemiplegiasecondary to Ischemic Stroke.* Indian Journal of Traditional Knowledge. 2011. 10 (4) 731-735.

[30] Alam M.T. *Effect of Dalak Layyan Kaseer with Roghane Shibbat in Slowing the Progress of Wajaul Unuq (Cervical Pain).* Dissertation Submitted to the RGUHS. Karnataka, Bangalore.

Cloud Publications
International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy
2014, Volume 3, Issue 1, pp. 175-181, Article ID Med-125
ISSN: 2320 – 0251

Review Article | Open Access

Mystery about Manuscripts of Hahnemann's Posthumous Writings-the Unique Treasure

Tamboli Chirag and Parmar Devang

Anand Homoeopathic Medical College and Research Institute, Anand, Gujarat, India

Correspondence should be addressed to Tamboli Chirag, drchiragtamboli@gmail.com

Publication Date: 15 February 2014

Article Link: http://medical.cloud-journals.com/index.php/IJAAYUSH/article/view/Med-125

Abstract Posthumous writings of Hahnemann have always been remained as a center of discussion from standpoint of critics as well as its own unique significance. But hardly, we are aware of with what difficulties they finally came to print and got published. This article is just an effort in that direction to unfold the endless hard work and struggle carried by stalwarts for many long years in the betterment of Homeopathic fraternity.

Keywords *54 Volumes of Hahnemann's Sick Registers; Four Large Hand Written Symptomatic Registers; Letters of Hahnemann's Correspondence & 6th Edition of Organon*

1. Introduction

Good monuments are valuable and effective as symbols of remembrance to the work of unusual men, to extraordinary deeds and great thoughts. They also act as stimulating rallying standards for the followers and friends of such men and their ideas, and they encourage those who stand on one side to make themselves acquainted with what is embodied in the monuments. More valuable, more effective than the most artistic monuments are the works which the men leave behind them and knowledge of their deeds and ideas. They should not be kept limited to one spot like the monuments, but they may and should reach everywhere, where understanding for the cause exists. Hahnemann's works were widely spread in his own times (Figure 1). At the same time, they remained for the most part amongst the ranks of the physicians and those cultured people who, from their own desire, were interested in medicine. Yet not a few writings of Hahnemann are adapted in style and contents for propagation amongst the largest sections of the community. They are really popular in the best sense of the word, so that it would be highly commendable to bring a suitable selection of them again before the public. What was until recently packed up and almost forgotten in a "cubic meter chest", has now become accessible (Adler & Adler, 2006). Besides other Hahnemann relics, Dr. Haehl now possesses Hahnemann's sick registers-fifty-four volumes in all, thirty-eight of them in German and sixteen in French. In the small artistic handwriting of Hahnemann, there were several case reports of patients which also include their medicinal remedies prescribed. Then four large hand-written symptomatic registers came to existence which are also correspondence of Hahnemann with relatives, friends,

patients and authorities-having more than 37 Kilograms of weight and finally came up with an accurate copy of the 6th Edition of the "Organon", comparing exactly with the original, which is in the possession of Professor Boericke of San Francisco. This copy was once produced under Madame Melanie Hahnemann's supervision and agrees in every detail with Hahnemann's own improved and enlarged text of the 5th Edition. The whole of these literary remains is extraordinarily valuable for an exhaustive knowledge of the Master's personality and theories. These enabled us to obtain a clear and lifelike impression of his character in all its peculiarities. From this evidence many new details have been established for the first time, and a clear, bright light has been shed over the whole of this unique personality. Important study of the histories of patients which were well written partly with great detail and very accurately and concisel helped in observation of disease as well as for a clear perception of individual diagnosis. Only to the professional man who can critically persue these reports will be able to appreciate (Adler, 2005; Haehl R., 1989 & Handley Rime, 1997).

It is a source of homoeopathic medicinal knowledge promising rich yield of treasure for many long years. The same applies to the repertories which will never have their equal in accuracy and conscientiousness of tabulation.

At the same time we had listen to different stories where Madame Melanie Hahnemann had refused either to publish herself or to allow other homoeopaths to publish for unknown reasons. She had persisted in this attitude in spite of frequent announcements and promises and in spite of the fact that she was continually emphasizing the value of her husband's work for the whole of humanity.

2. After Death of Hahnemann

To understand this we need to move back to that time when actually things started to get happen, soon after the death of Hahnemann. This was the time when their colleagues, French Homoeopathic physicians, started opposing her medical practice and asked her to seize it. Madame Melanie was not to be deterred. She continued to practice. But she tried to shield herself more thoroughly in the sight of the authorities and the courts. Then she made repeated attempts to persuade Dr. C. Von Bönninghausen to settle in Paris, so that he might practice homoeopathy together with her, had been made in vain. Constantine Hering of Philadelphia had also been invited to settle down in Paris without success. Thus she was left to herself for a considerable time. For even her endeavors to be considered as a colleague of the Association of French Homoeopathic physicians and to be asked to their meetings had been frustrated. Then the sorely injured woman, piqued in her pride and in her presumptuous professional dignity, complained most bitterly to her friend, Bönninghausen. The feud between her and the homoeopathic physicians even became publicly know. The result was an almost complete isolation.

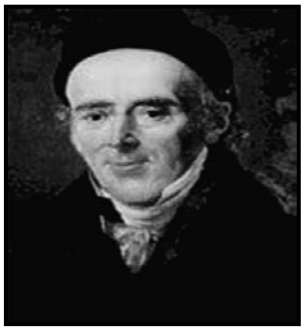

Figure 1: *Christian Friedrich Samuel*

Figure 2: *C.F. Von Bönninghausen Hahnemann*

3. Bönninghausen's Efforts

By the time Bönninghausen (Figure 2) had repeatedly written to her asking for manuscripts of her late husband, as, for example, in December, 1855, when he had begged for a volume of the patients' reports. Melanie Hahnemann refused his request because she has fear that the police might seize it at the frontier on its return journey, so that it would only return damaged and torn. On the 12th of January, 1856, Bönninghausen repeated his request extending it to the two last volumes of the sick reports with the guarantee of returning them as such without any damage. A friend of his, he said, would bring the books from Paris. With the same project he gain applied to Madame Melanie in April 1856. Then she made another proposal which was that she would copy some parts, as nobody else knew the new terms last employed by Hahnemann for the process of "dynamization". When she had not fulfilled her promises in May 1856 she excused herself by referring to her removal, but she companset by promising to send the "translations", as she also wanted to publish the cases concerned in Paris (Bönninghausen, 1908).

Bönninghausen again urged Madame Hahnemann when he visited Munster to publish abroad the posthumous medical writings and other literary remains of Hahnemann for the good of science and the public. As all her attempts had failed to persuade a foreign homoeopathic physician of repute to settle down in Paris in order to join with her in medical practice, she made another way to do it which is the possibility of marriage of her adopted daughter with Bönninghausen's son Karl Von Bönninghausen. Finally when the union of her adopted daughter with Bönninghausen's son became one of her aspirations, she agreed spontaneously for the publication of the 6th Edition of the "Organon". Not only this, she also desired to send Bönninghausen some new and particularly valuable medicinal preparations of her late husband. Until that time she had kept these to herself (for 13 years) and she still desired them to be kept secret until Bönninghausen had tested them himself. Bönninghausen relied so implicitly on her given promise that he made a report of it to the homoeopathic physicians of the Rhineland and Westphalia at their ninth annual meeting. But it was soon evident that Madame Melanie would not keep her promise. Nothing more was heard of the publication of the new "Organon". Of the promised preparations of Hahnemann, Bönninghausen did not receive a single sample and only a few disconnected extracts from the sick registers had reached him, so that he became the object of ridicule before his more intimate friends and also publicly. When a short announcement was made in "La Press" of June 29th, 1856, that: Madame Hahnemann, widow of the celebrated discoverer of homoeopathy, departed from here yesterday after her return from Germany, where she had interviews with the famous Bönninghausen, father of "pure" homoeopathy, concerning the publication of Hahnemann's posthumous writings, the time for which, as decreed by his will, has now arrived (Bönninghausen, 2004).

Madame Hahnemann did not apologize for not keeping her promises. Rather than, she attacked Bönninghausen with remarkable fierceness and even coarseness as he had mentioned publicly their conversations. This was the method employed by Madame Melanie to extricate her from the promises made to her friend. The promised likewise were not forthcoming. She also wrote back: "I can only send you the new remedies when I go to Versailles where they are. I shall be going there in a few days' time". This excuse was repeated in three further letters within a fortnight. The little trouble that had arisen between Madame Hahnemann and Bönninghausen because of his communications to the Medical Association of Rhineland and Westphalia had no effect on the proposed marriage. In July, 1857, the ceremony took place. The young couple lived with the mother in her house. In conjunction with her son-in-law the latter now carried on the practice of homoeopathy most zealously. (Bönninghausen, 2004).

4. Lutze & Süss Hahnemann

Then a second incident once more brought Madame Hahnemann's name into public notice in 1865, namely the unwarranted publication of a 6th Edition of the "Organon" by Dr. Lutze, of Köthen (Figure 3), and simultaneously the announcement of an "improved and enlarged" 6th Edition of the book by Hahnemann's grandson, Dr. L. Süss-Hahnemann. In this case, danger was threatening her treasure so carefully guarded. She must therefore act swiftly and with all determination (Hahnemann CFS, 1988).

In communications to the publishers of the Süss and Lutze editions in Leipzig she warned them gravely of the consequence of further illegal action, defending with great emphasis her rights of possession of that edition of her husband's chief work, which was completed by the deceased himself and assuring them of an early publication of the same by herself, that she again failed to put her promises into action, from which alone originated the delay in publishing the "Codex of Human Health".

5. American Homeopathic Physicians

An American homoeopathic physician, who had entered into communication with her about the posthumous writings, therefore characterized her quite rightly in polite terms as an *"energetically acquisitive business woman".* Madame Melanie possessed enough foresight in her sixties to understand the significance of the 6th Edition of the "Organon", but at the same time realized the publication would not be a financial success (Hahnemann CFS, 1988). Consequently she delayed the publication again, probably in the expectation of being offered higher prices and in the hope that, owing to the scarcity amongst booksellers of the fundamental work of homoeopathy (a scarcity which was bound to make itself felt more and more), the value of the last edition, revised by the Master himself, would increase in value. She was obviously unable to understand that she was losing more and more in respect and reputation. She acted with regard to the other posthumous works of her husband as she had with the 6th Edition of the "Organon". All attempts of Hahnemann's daughter and grandson to recover the books lent had succumbed to the stubbornness of their new possessor. On the contrary, she tried to utilize the whole of the posthumous writings to her own advantage. She was continually offering them for sale to English and American homoeopathic physicians. On the other hand they also made strenuous efforts and the most extensive offers to obtain possession of the writings. In 1865 she entered into negotiations with the faculty of the Hahnemann College in Philadelphia, whose teaching staff included at that time Constantine Hering, Lippe and Rau. An agreement was not reached as Madame Hahnemann had asked for an extraordinary sum. Afterward she agreed to negotiate with the American physician, Dr. C. Dunham, of New York, who suggested that the purchase money for Hahnemann's posthumous writings should be obtained by a subscription list. But unfortunately, he died during negotiations. In the year 1877 Madame Melanie entered into further negotiations with Dr. Bayes, of London, who initially had made enquiries from her on behalf of the London School of Homoeopathy, particularly for acquiring the 6th Edition of the "Organon" and the Sick Registers. In the response, Madame Melanie detailed the "manuscripts of Hahnemann" still extant which she treasured like jewels which includes the 6th Edition of the "Organon", the Sick Registers, the correspondence and the Repertories. She expressly stated that it was entirely a matter of "original manuscripts", which she would deliver as such. Then she quoted the jealously and persecution on the part of Hahnemann's followers as the reason why these writings had not yet been published. She asserted that her husband had repeatedly required of her a solemn oath that all copies of his works should be made under her supervision, so that no malicious and deceptive alterations of the text could take place. As to the publication of the works she was to wait until the rancor of his contemporaries had subsided.

Most probably we have to deal again in these pronouncements merely with the idea of her own importance, and a haggling trick on the part of Madame Hahnemann, who desired in this way to justify her previous actions and at the same time to procure for herself the highest possible price. Subservient to the same purpose was probably her statement that her possessions had been destroyed in the war of 1870 and 1871, when she lost her fortune. Thus she arrived at the proportion that such a sum should be paid at once to her, as would replace the income from her practice, which she had been obliged by necessity to take up again. She suggests that the sum itself might be raised by subscriptions in accordance with Dunham's plan. Then the 6th Edition of the "Organon" could be handed over to the printer "in a few months". At times she repeatedly emphasized as her "most hearty desire" to publish the "Organon", "which contains so many treasures for humanity". Dr. Bayes then asked for a dispatch of Hahnemann's posthumous writings. But the widow extremely cautious and business like as she was refused this request, as a "chest one meter cubed" would be necessary for the dispatch and, in any case, the English physician would not be able to read Hahnemann's fine German handwriting. Of course he could willingly see the treasure whenever he came to Paris. These negotiations with Bayes likewise led to no result. From letters to Dr. T.P. Wilson and Dr. Campbell, of Cincinnati, published by these gentlemen in the homoeopathic journal "Cincinnati Medical Advance", has revealed that Madame Hahnemann had originally wanted her husband's posthumous writings to go to the homoeopaths of North America and she had also demanded 50,000 dollars for the same. The attempts at sale, as it now appear, were baulked, and frustrated so long as she was still alive because of enormity of the sum demanded. Then her death broke off the negotiations as she died on 27th May, 1878.

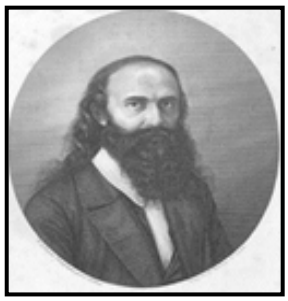

Figure 3: *Arthur Lutze*

Figure 4: *Dr. Richard Haehl*

6. Frau & Karl von Bönninghausen (Daughter & Son in Law of Hahnemann)

Her adopted daughter, Frau von Bönninghausen, resumed the negotiations interrupted by her mother's death in 1878, with the homoeopathic physicians of America. Seeing quite clearly that she could not obtain the sum hitherto demanded she agreed to reduce the price and brought down to the half making it 25,000 dollars. Great as was the enthusiasm of the Americans, particularly to acquire the 6th Edition of the "Organon", these negotiations was resulted into broke down on account of the extravagance of the sum demanded. In 1880 homoeopathic physicians of North America undertook to make a last effort to acquire Hahnemann's writings. Dr. H.N. Guernsey of Philadelphia visited Frau von Bönninghausen during a tour in Europe. After a thorough perusal of the Hahnemann manuscripts in her possession, he made a report to his professional colleagues at a special meeting held in Constantine Hering's house at Philadelphia. Frau von Bönninghausen had finally fixed the lowest price at 10,000 dollars, but she also stipulated that she should take a share of any profits accruing from the publication of the works and then followed an appeal for the procuring of necessary funds. It seems, however, that the success hoped for did not materialize. From that time onwards the negotiations were dropped until Dr. Haehl took up again in 1897. Frau von Bönninghausen told him

that she still had undisputed possession of all the books and manuscripts. After correspondence a visit to Darup, the home of the Bönninghausen family, ensued in 1900. Frau von Bönninghausen had died shortly before, and, as there were no children of the marriage, she had to appoint her husband Karl von Bönninghausen as sole heir to the Hahnemann legacy.

7. Haehl & Boericke Succeed

Unfortunately, a second visit to Darup and negotiation by word of mouth, undertaken by Dr. Haehl (Figure 4) in 1906 with Professor Dr. William Boericke of San Francisco, remained fruitless.

Only in the early part of 1920, that is, after twenty-three years of written and oral negotiations, was a successful attempt at last made to make terms with Karl von Bönninghausen's heirs. The result was the acquisition by Dr. Haehl of the whole of Hahnemann's posthumous manuscripts. The joy and satisfaction of being able to obtain these treasures has only increased after years and years of waiting and longing. Of their intellectual value the posthumous treasures have lost nothing. Haehl used one of the two copies for his edition of the 6th edition published by Willmar Schwabe in 1921. Both copies have been considered lost ever since. They are not with Haehl's collection which the German industrialist Robert Bosch senator (1861–1942) had bought off him still during his lifetime. The original which Boericke used as the basis for his American translation of the *Organon* eventually found its way into the library of the University of California in 1971 and is still maintained well there. Josef M. Schmidt's text-critical 1992 publication of the *Organon*'s 6th Edition is based on this still existent original manuscript which has shown only a few gaps when compared to one of the copies those were available to Haehl for his edition.

However valuable and effective are the monuments and writings of the dead master, most valuable and most effective is the propagation of his teachings and ideas by the work of his successors and followers and by the combined zealous work of those who have realized the intransient truths and beneficence of Hahnemann's reforms.

8. The Robert Bosch Institute

This treasure is kept preserved in Stuttgart unparalleled. Almost all Hahnemann's Case Books form the time of 1801, around 5000 letters of correspondence with relatives, friends & followers, as well as manuscript copies of Repertories are to be found there (Robert, 2008).

References

Adler Ubiratan C. and Adler Maristela Schiabel. *Hahnemann's Experiments with 50 Millesimal Potencies: A Further Review of his Casebooks.* In: Homeopathy. 2006. 95.

Adler Ubiratan. *LM or Q-Potencies: Retrospection of its use during 15 Years in Brazil.* In: Homeopathic Links. 2005. 18.

Bönninghausen C.F. Von. *The Lesser Writings*. B Jain Publishers, New Delhi, India. 1908

Bönninghausen C.F. Von. *A Systematic Alphabetical Repertory of Homeopathic Remedies*. B Jain Publishers, New Delhi, India.2004

Haehl R. Samuel Hahnemann. His Life and Work. English transl. by Wheeler and Grundy. B Jain, Reprint 1989.

Handley Rime. In Search of the Later Hahnemann. Beaconsfield Publisher. 1997

Hahnemann CFS. Organon Der Heilkunst: Aude Sapere. 6. Aufl., hrsg. u. mit Vorw. vers. von Richard Haehl, Leipzig, Schwuabe, 1921, Heidelberg, Haug, 1988.

Jutte Robert. The LM Potencies in Homoeopathy: from their Beginnings to the Present Day. 2008

Cloud Publications
International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy
2014, Volume 3, Issue 1, pp. 182-188, Article ID Med-131
ISSN: 2320 – 0251

Case Study | Open Access

To Study the Effect of Jalaukavaacharan and Nimbatail in Comparison with Local Application of Nimbatail in Vicharchika w. r. t. Dry Eczema

Vandana Sitaram Shinde, Sushil Vilas Chawre, and S.V. Bhosle

Department of Kayachikitsa, Govt. Ayurved College Vazirabad, Nanded, Maharashtra, India

Correspondence should be addressed to Vandana Sitaram Shinde, drvandana2009@gmail.com

Publication Date: 3 April 2014

Article Link: http://medical.cloud-journals.com/index.php/IJAAYUSH/article/view/Med-131

Abstract To evaluate the effect of Jalaukavacharan and Nimbatail application in Vicharchika with special reference to pittapradhan kshudrakustha described in Sushruta Samhita. To study in detail, the prevalence of sushrutokta vicharchika (dry eczema) in the light of the description available in the modern medicine for eczema. Objectives of the study are to prescribe comparatively economical and easily available remedy in patients' interest as well as to study effect of Jalaukavacharan (bloodletting by leech) and Nimbtail in comparison with local application of Nimbatail in Vicharchika. Patients suffering from Pittapradhan Vicharchika i.e. Dry Eczema was selected from O.P.D. and I.P.D. of GAC, Nanded. 60 patients of Pittapradhan Vicharchika i.e. Dry Eczema were selected randomly and Jalokawacharan with Nimbatail in one group as Shodhan Therapy whereas other group Nimbatail Pratisaran (local application) as Shaman Therapy was given for 10 days. Jalaukavacharana (bloodletting by leech) and Nimbataila pratisarana (local application) (shodhana and shamana Therapy) is combining more effective than Nimbataila Pratisarana (local application) (shamana therapy). From the above observation and statistical analysis, we can conclude that the therapy was effective and statistically significant. There was no adverse effect of therapy. The therapy was cost effective and minimum time consuming. There is need of the study on large scale.
Keywords *Dry Eczem*; *Jalaukavacharan; Nimbtaila Pratisarana*

1. Introduction

Skin is the protective covering of the body which covers the entire body surface therefore Diseases of Skin account for a great deal of misery suffering incapacity and economic loss besides this they are a great handicapping the society because they are visible [1]. In Ayurveda- the ancient science of India, vicharchika has described as Kshudra Kushtha [2]. For Kshudrakushta or sthanik Rattadushti, Sushrutacharya put forward Doshanusari (according to doshas) bloodletting Therapy. For Pittapradhanya, Jalaukavacharan (bloodletting by leech) is the ideal treatment [3]. Nimba is the herb

described as Kushtaghna by Bhavaprakasha [4]. It is used in skin disease and its medicated oil is one of the best disinfectant agents for skin disease (*holisticonline.com*). Therefore Nimbtail pratisarana (local application) and Jalaukavacharan (bloodletting by leech) were used on alternate day for 10 days, in Sushrutokta vicharchika (dry eczema). This was more beneficial in those patients who refuse to take oral medicine at frequent intervals for a long duration. With the promise of Panchakarma Therapy in Ayurveda, this was the honest attempt to give relief to the patient in short duration. The study was done in government Ayurved hospital as dissertation from 2008 to 2010. The ethical clearance number is GACN/SS/D-3/164-184/08, Dated-11/01/2008.

1.1. Aim

To evaluate the effect of Jalaukavacharan and Nimbatail application in Vicharchika (dry eczema) with special reference to pittapradhan kshudrakustha described in Sushruta Samhita. To study in detail, the prevalence of sushrutokta vicharchika (dry eczema) in the light of the description available in the modern medicine for eczema.

1.2. Objectives

1) To prescribe comparatively economical and easily available remedy in patients interest.
2) To study effect of Jalaukavacharan (bloodletting by leech) and Nimbtail in comparison with local application of Nimbatail in Vicharchika.
3) To assess facts regarding Ayurvedic Chikitsa and diet restriction on Vicharchika (dry eczema).
4) To observe effect of Jalaukavacharan (bloodletting by leech) and Nimbataila pratisarana (local application) based on information given in Ayurvedic Texts.

2. Materials and Methods

2.1. Materials

Nirvish Jalauka (nonpoisonous leech) [5], as per description of Sushrut Samhita and Astang Sangrah.

Nimbtail: Formulation was based on ancient method. Standard Drug was made available by scholar from local market.

Type of Study: Randomized control study

2.2. Group of Management

Trial Group: Jalaukavacharan (bloodletting by leech) and Nimbtail

No. of Patients: 30 patients

Control Group: Application of Nimbataila

No. of Patients: 30 patients

2.3. Methodology

1) Jaloukavacharana (bloodletting by leech) [6] was carried out on alternate day in 5 settings.
2) The Jalouka (leech) was changed for next day karma i.e. 2nd setting of Jaloukavacharana (bloodletting by leech) and number of jaloukas (leeches) was decided as per requirement.
3) After Jaloukavacharana (bloodletting by leech) dressing was done.
4) Every 2nd day of Jaloukavacharana (bloodletting by leech); Nimba tail was applied on affected area.
5) Duration of course was decided by discoursing with the senior physicians. No such reference is available for duration. As well as in pilot study we have found that the duration was of 10 days. Therefore 10 days course was preferred in this project.

2.4. Follow up

1) Patients were observed daily for symptoms up to 10 days and follow-up was done after 7 day i.e. 17th day of treatment.
2) Each patient was re-examined thoroughly and clinical findings were recorded.
3) IInd day Nimbtail was applied on the affected area.
4) Result of both groups was assessed statistically.

Pathya–Apathya

Basic consideration of Jalaukavacharan (bloodletting by leech) and vicharchika (dry eczema) was kept in mind while advising pathya- apathya.

2.5. Criteria of Diagnosis

The patient was diagnosed on the basis of symptoms (i.e. Kandu, Ruja, Raji and Rukshta) given in Sushruta Samhita [7]. After making the diagnosis clinical Performa was filled up, for this a detail clinical history was taken initially and complete thorough examination of each patient was done on the basis of the case record form.

2.6. Criteria for Assessment

Symptoms were assessed by adopting suitable scoring method.

(A) Subjective Criteria

Kandu i.e. itching

(Itch basic mechanism and therapy – Gil Yosipovitch) [8]**:**
No Itching - 0
Momentary itching - 1
Episodic itching - 2
Continuous itching - 3

Ruja (Pain)

No pain - 0

Mild pain of low intensity causing - 1
No disturbance in routine work
Mod pain hampers the daily routine work - 2
Severe pain causing definite - 3
Interruption in routine work -4

(B) Objective Criteria

An appropriate clinical tool was used.

a. **Mandala**: Size of Mandala asses by using transparent graph paper.
b. **Raji and Rukshata** were asses by pre and post treatment photographs of Mandala.

Inclusion Criteria

1) All patients in the age group of 16-60 years presenting with signs and symptoms of Vicharchika (dry eczema), was included in the study.
2) Patients which are ready for Jalaukavacharan (bloodletting by leech) was selected patient will be given idea of the project before including in trial group.
3) Patients of either sex were included.
4) Textual symptoms present on upper and lower limb.

Exclusion Criteria

1) Not willing for trial
2) Bleeding disorders
3) HIV, DM, Venereal diseases
4) Symptoms and signs present on genitals and palm and sole such patients were excluded.

Withdrawal Criteria

The patients were withdrawn from the trial if –

a. Occurrence of any serious events.
b. Patient has become uncooperative.
c. The patient is not willing to continue the trial.

Medications and Treatment

Medications and treatment permitted during trial,

a. For minor ailments requiring medication for less than 3 days.
b. Rescue medication in the form of life saving drugs, antibiotics, IV fluids may is permitted if 2 experts agree on their necessity.

Medications and Treatment not permitted during Trial

1) Corticosteroids
2) Analgesics
3) Local application of steroids or analgesic
4) Self-medication

5) Narcotics

Overall Assessment of Therapy

1) Grade – I: All symptoms cured within 10 days i.e. complete Remission.
2) Grade – II: 3-4 Symptoms within 10 days (i.e. Kandu, Ruja, Raji and Rukshta) cured.
3) Grade – III: 2 symptoms cured within 10 days i.e. Ruja Kandu
4) Grade – IV: No improvement/Unchanged within 10 days.

3. Observations and Statistical Analysis

To assess results of the study, the data of 60 patients was observed and statistically analyzed. The level of significance was set at 5% (p = 0.05). Paired t Test was applied to compare the parameters like -Itching, Pain, Size of Mandala of both Group. 'x^2' test was applied to parameters like-Raji, Rukshata of both Groups.

3.1. Observations

Following Observations were drawn from the study:

1) Maximum no of patients were belonging to 30-60 yrs age Group.
2) Maximum no of male patients was observed in this study.
3) According to occupation, laborers, housewives, servicemen, businessmen, students were affected by vicharchika (dry eczema), while maximum numbers of patients observed were servicemen.
4) Allergens, specific time of day like night, evening (pitta-kaph prakopakala), and sour things in diet were observed as aggravating factor of disease.
5) Katu rasapriyata was observed in maximum no. of patients.
6) Maximum no. of patients observed was having pitta-vataja prakriti.
7) Educated as well as non-educated patients had equal affection towards disease.
8) Maximum no of patients showed no significant past history.
9) All the patients suffering from Vicharchika (dry eczema) had negative past history.
10) Maximum no of patients had not taken any previous treatment.
11) 43 (71.00%) patients had disease duration was between 1 month to 1 year.
12) Majority of patients 59 (98.44%) were suffered from Vicharchika (dry eczema) of Extremities.
13) In experimental group, absolute relief occurs from itch within 10 days with no recurrence noted.

4. Results

Result was concluded from following assessment (Table 1):

1) Grade I: All symptoms cured within 10 days i.e. complete Remission.
2) Grade II: 3-4 Symptoms within 10 days (i.e. Kandu, Ruja, Raji and Rukshta) cured.
3) Grade III: 2 symptoms cured within 10 days i.e. Ruja Kandu
4) Grade IV: No improvement/Unchanged within 10 days.

***Table 1**: Study Assessment through Grading*

Result	Group A	Group B	Total
Grade I Improvement	1	0	1
Grade II Improvement	10	0	10
Grade III Improvement	17	2	19
Grade IV Improvement	2	28	30

x^2= 10.73 P- P < 0.05

This showed that Jalaukavacharana (bloodletting by leech) and Nimbataila pratisarana (local application) is more effective than Nimbataila Pratisarana (local application) only.

5. Discussion

5.1. About Disease

Atikandu (severe itch), Atiruja (severe pain), Raji (linear marking), Rukshata and Mandala (vyadhi pratyanik lakshana of all Kushthas) are the symptoms of pitta dosha dominant vicharchika (according to Acharya Sushruta).

5.2. About Chikitsa Siddhanta

Acharya Sushruta categorized vicharchika (dry eczema) as pittapradhan Kshudrakushtha. Two types of treatment are advised for kushtha, Shodhanaand Shamana Therapy [9]. For pittapradhana Kshudrakushtha Jalaukavacharana (bloodletting by leech) is the Ideal treatment. Nimba is the herb described as Kushthgna by Bhavaprakash and it is medicated oil is one of the best healing and disinfectant agents for skin diseases. So along with pathya - apathya, Nidanparivarjana Jaluakavacharana (bloodletting by leech) (shodhana) and Nimbataila Pratisarana (local application) (shamana) combination therapy, for 10 days was decided.

5.3. About Effect of Therapy

Itch is the main Path gnomic symptom of Vicharchika (dry eczema). Itch sensation causes sensory nerve irritation, which leads to itch and Itch scratch chain goes on. In present study, experimental Group shows better improvement in (Itch) Kandu than Control Group. According to statistical Analysis also, result is highly significant in Kandu, Ruja, Raji, Rukshata and reduction in Size of Mandala. Recurrence of symptoms was not observed in Experimental Group. This proves Efficacy of Jalaukavacharana (bloodletting by leech) and Nimbataila Pratisarana (local application) (Shodhana and shaman combination) against Nimbataila Pratisarana (local application) (shamana therapy only).

6. Conclusion

From the above observation and statistical Analysis, we can conclude that

1) Jalaukavacharana (bloodletting by leech) and Nimbataila pratisarana (local application) (shodhana and shamana Therapy) is combine more effective than Nimbataila Pratisarana (shamana therapy)
2) Amongst 5 symptoms of vicharchika (dry eczema) i.e. Kandu, Ruja, Raji, Rukshata, and Mandala Jalaukavacharana (bloodletting by leech) and Nimbataila Pratisarana (local application) is effective to cure Kandu, Ruja, Raji within 10 days interval.

3) Nimbatail Pratisarana is effective to cure Kandu and Ruja, but the recurrence of these symptoms were observed after withdrawal of therapy.
4) There was no Adverse Effect of therapy.
5) The Therapy is cost Effective.
6) There is need of study on large scale.

References

[1] Uday Khopkar. *Textbook of Skin Diseases and Sexually Transmitted Infections.* 5th Ed. Publisher-Bhalani Book Depot, Mumbai.

[2] Madhavanidana, with Madhukosa Commentary Published by Caukhamba Samskruta Samsthana, 21st Ed., 1993.

[3] Susrutasamhita-Sutrsthana, with Nibandhasangraha Commentary of Dalhanacarya Published by Caukhamba Orientalia. 5th Ed, Verse Number 13.

[4] Bhavaprakasa, Caukhamba Samskruta Samsthana, 5th Ed. 1993. 154.

[5] Astangahrudaya by Vagbhata with the Commentary Sarvangasundara by Arunadatta and Observations Ayurvcdarasayana by Hemadri.

[6] Ayurveda Pancakarma Vijgana by H.S. Kasture published by Baidyanath Ayurveda Bhavan, 4th Ed., 1993.

[7] Susrutasamhita-Nidansthana, with Nibandhasangraha Commentary of Dalhanacarya Published by Caukhamba Orientalia. 5th Ed., Verse Number 5/13.

[8] P.N. Behl, Practice of Dermatology, Mumbai.

[9] Carakasamhita, with Cakrapanidatta Kruta Ayurvcdadipika Commentary Published by Caukhamba Samskruta Bharati Academy. 3rd Ed.

Cloud Publications
International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy
2014, Volume 3, Issue 1, pp. 189-192, Article ID Med-137
ISSN: 2320 – 0251

Case Study | Open Access

Efficacy of Marham-e-Rall and Quars Musaffi Khoon (Kit Medicine) in Acne Vulgaris

I. Ara, N.H. Khan, Basharat Bukhari, and Nighat Ara

Department of Unani, Regional Research Institute of Unani Medicine, Srinagar, Jammu and Kashmir, India

Correspondence should be addressed to I. Ara, drirfat@yahoo.com

Publication Date: 17 April 2014

Article Link: http://medical.cloud-journals.com/index.php/IJAAYUSH/article/view/Med-137

Abstract Acne Vulgaris is an extremely common skin problem in teenager boys and girls. 60 patients with active lesion of Acne Vulgaris were included in the open clinical trial to evaluate the efficacy of Unani kit medicine in our outpatient department of Regional Research Institute of Unani Medicine, Srinagar. Results are appreciable based on details given in paper.
Keywords *Acne Vulgaris; Efficacy; Marham Rall; Quars; Musaffi*

1. Introduction

A) Acne Vulgaris

Commonly called Acne is a common skin condition, affecting 85% of people at some time during their lives (Wikipedia, the free encyclopedia Acne Vulgaris). The cause of Acne vulgaris in teenagers is generally an increase in male sex hormone which both genders acquire during puberty (James W.D., 2005). The face and upper neck are the most commonly affected but chest, back and shoulders may have acne as well (John S., 2003).

In Unani system of medicine Acne is also defined as an inflammation of Sebaceous glands of skin much oil is excreted from the glands and collected. The collected material is a form of pus which forms the acne. There are many cases of acne formation e.g. imbalance in humors, indigestion, urinary tract infection, irregular menstrual history, use of rich oily diet given in Unani System of Medicine. It is equally common in girls and boys (Wasim Azmi, 2001).

Many topical drugs antibiotics are useful in the treatment of Acne that have been associated with serious short and long term adverse effects (Reisner R.M., 1983).

So, the present study was planned to evaluate the efficacy of two herbal preparations i.e. Marham Rall (locally) and Quars Musaffi kit medicine in Acne Vulagaris.

1) Composition of Marham Rall

Shorea robusta resin	50 Gms
Camphor	50 Gms
Acasia Catechu	50 Gms
Mustard oil	200 Gms
Wax	10 Gms

2) Composition of Quars Musaffi

Berberis Artsiata	125 mgs
Zanzibar Zerunbet	125 mgs
Acacia Catechu	125 mgs
Cassia Absus seeds	125 mgs

B) Inclusion Criteria

1. Age group of 13-25 years
2. Both sexes

C) Exclusion Criteria

1. Abnormal thyroid function
2. Genetic disorder

2. Materials and Methods

60 patients of newly diagnostic and previously treated cases of Acne Vulgaris were included in study, 39 girls and 21 boys. The cases were selected from the outpatient department of Regional Research Institute of Unani Medicine, Srinagar. A written consent was obtained from all parents of patients participating in the study. All 60 patients fulfilled the inclusion criteria. These all patients were advised to apply Marham Rall twice a day on acne lesions on the face and Quars Marham Khoon were administrated at a dose of 2 tablets twice a day. The duration of treatment was 4 weeks. They were clinically assessed every week for 4 weeks.

3. Observation and Results

During study it was observed the out of 60 patients; registered 35% were male and 65% females.

***Table 1**: Sex Distribution of Patients*

S. No.	Age in Years	Male %	Female %	Total
1.	13-16	6	12	18
2.	17-19	7	16	23
3.	20-23	5	7	12
4.	25	3	4	7
	Total	21 (35%)	39 (65%)	60 (100%)

The highest incidence has been recorded in the age group of 17-19 years.

***Table 2:** Grading of the Diseases*

S. No.	Grade	State of Acne	No. of Patients
1.	I	Mild Acne with only Papules	10
2.	II	Moderate Acne with Papules and comedones	21
3.	III	Severe Acne with Papules and Pustules	25
4.	IV	Very Severe Acne with Papules, Pustules and Cysts.	4

It was observed that out of 60 patients; 25 patients were in severe Acne with papules and pustules.

In Moderate Acne with Papules and Comedones are 21 patients.

In Mild Acne with only papules are 10 patients.

In severe Acne with papules, pustules and Cyst are only 4 patients.

Table 3: *Response to Treatment of Marham-e- Rall + Quars Musaffi Khoon*

Grade	No. of Patients	Main Features			
			Excellent	Good	No improvement
I	10	Papules	6	4	
II	21	Papules and comedones	9	12	
III	25	Papules and pustules	10	12	3
IV	4	Papules, pustules and Cyst.	1	1	2

In grade I Acne there were excellent results in 6 cases and good results in 4 patients.

In grade II Acne there were excellent results in 9 and good results in 12 patients.

In grade III Acne there were excellent results in 10 and good results in 12 and 3 cases did not respond to the treatment.

In grade IV Acne the excellent result was in 1 patient and good results in 1 patient. 2 patients did not respond to treatment. (www.nir.org/Hand book)(www.alhudaunanicilinic.com/medicine)

4. Discussion

There are many products available for the treatment of Acne many of which are without any scientifically proven effects. In this study the maximum incidence found was between the age group of 17 and 19 years (Table 1). The highest number of cases was with severe acne with papules and pustules (Table 2). After this combine therapy significant response in all the three grades of acne without any side effect was reported. All the patients completed the treatment without dropout. Systemic antibiotics are the main treatment for acne vulgaris, corticosteroids are also effective in the management of acne vulgaris but side effects may occur with oral as well as local application. (Kufman D., et al., 1983).

5. Conclusion

Since the therapy for Acne Vulgaris has limitation in modern medicine, herbal remedies can offer an alternative therapy for Acne Vulgaris. This study shows that Marham Rall and Quars Musaffi Khoon combination can be effective therapy in grade I, II and III grade Acne Vulgaris. In grade IV better results are obtained when therapy will be extended.

Acknowledgement

The researchers are highly thankful to Director General, CCRUM, and Dr. Mohammad Khalid Sidiqui for time to time guidance and encouragement for extra mural activities.

References

James, W.D. *Clinical Practice Acne*. The New England Journal of Medicine. 2005. 352 (14) 1463-72.

Johns, 2003: *Diseases of the Sebaceous Glands*. 6th Ed. Mc Grew Hill, New York, 672-87.

Kaufmann D., Pichler, W., and Beer, J.H. *Severe Episode of High Fever with Rash, Lymphadenopathy, Neutropenia and Eosinophilia after Imnocycline Therapy for Acne*. Arch Intern Med. 1994. 154 (17) 1983-4.

Nadkarni, K.M. *Indian Materia Medica*. 3rd Ed. Krishnarao Mangeshrao Nadkarni (Ed). Popular Prakashan, Bombay. 1996. 2; 103-107.

Resner, R.M. *Antibiotic and Anti-inflammatory Therapy of Acne*. Dermatal Clinic. 1983. 1; 385-97.

Wasim Ahmed Azmi, 1997: *Moolijat.* Ist Ed. 4. 144-146.

WWW.Wikipedia, the Free Encyclopedia Acne Vulgaris.

Cloud Publications
International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy
2014, Volume 3, Issue 1, pp. 193-196, Article ID Med-147
ISSN: 2320 – 0251

Research Article | Open Access

Anxiety State and Its Comparison between Two Different Personality Types in Perspective of Unani Tib

Farkhunda Jabin

AU Medical College and ACN Hospital, Aligarh, Uttar Pradesh, India

Correspondence should be addressed to Farkhunda Jabin, far.khun.da@hotmail.com

Publication Date: 26 May 2014

Article Link: http://medical.cloud-journals.com/index.php/IJAAYUSH/article/view/Med-147

Abstract Unani system of medicine or Tib is one of the Indian Systems of Medicine; it is based on the fundamentals given by Hippocrates, Galen and Ibne Sina. It has holistic approach to healing; it gives equal emphasis to patient's individuality (Temperament) and lifestyle factors. Temperament of the individual is the key concept in total diagnosis, prevention and treatment procedure. Each temperament is defined by peculiar personality traits and associated qualities. The purpose of the present study was to compare the anxiety state between Sanguinous/Damvi and Phlegmatic/ Balghami temperaments. The total hundred (50 Damvi and 50 Balghami temperament) males were selected for this study. The ages of the subjects were ranged between 25 to 35 years and their temperament was assessed based on Galen 10 parameters. The data on anxiety state of the subjects were obtained by using a questionnaire developed by Neary and Zuckerman (1976). The t test was used to determine the difference between the mean score of anxiety level between Damvi and Balghami temperaments. Results revealed that there was a significant difference between Damvi and Balghami temperaments at 0.05 level of significance with 98 degree of freedom. Study showed that Damvi temperament males have higher level of anxiety state as compared to Balghami temperament males.

Keywords *Temperament; Balghami; Damvi; Anxiety; Unani Tib*

1. Introduction

Unani Tib is not a newly emerging system of Health care but, has roots in Traditional Medicine which extends back for many centuries. With its holistic approach, Temperament of the individual is the key concept in total diagnosis, prevention and treatment procedure. Tib attaches considerable value to assessing patient's authentic temperament as a precursor to therapeutic approach based on his uniqueness; this has been highlighted by Hippocrates as he says "It is more important to know what sort of person has the disease than to know what sort of disease a person has" [1]. Temperament is a term which describes a person's physical characteristics as well as his psychological and emotional inclination. By estimation of temperament we can assess personality and its predisposition (risk factors) for particular disorders. Although the number of possible temperaments is virtually infinite, Tib

has narrowed them down to four types. They are named after a specific humor which dominates in that individual. Each temperament has peculiar constitution and body mind types and associated qualities. They are Damvi/Sanguinous (hot and moist), Phlegmatic/Balghami (cold and moist), Bilious/Safravi (hot and dry) and melancholic/Saudavi (cold and dry) [2]. Each temperament is recognized by its own basic type of physique, physiology, personality traits and character. Such as Damvi types are high spirited, enthusiastic, effervescent, outgoing confident and social. Balghami types are compassionate, sympathetic, patience, light hearted, calm relaxed and take life easy. Whereas Safravi types prone to anger, impatient irritable, short tempered, courageous, audacious, and confrontive. Saudavi types are withdrawn but practical, pragmatic, realistic, moody, and depressed [3].

Anxiety can be defined as Future oriented mood state in which one is ready or prepared to cope with upcoming negative events [4]. In anxiety as the body prepares itself to deal with threat, pressure, heart rate, perspiration, blood flow to the major muscle groups are increased, while immune and digestive functions are inhibited, therefore physical effect of anxiety include palpitations, increased heart rate, muscle weakness, tension, fatigue, nausea, chest pain, shortness of breath, and headache. Anxiety can be of many types as somatic anxiety, cognitive anxiety, test and performance anxiety, social and stranger anxiety, generalized anxiety, decision anxiety, trait anxiety and state anxiety etc., trait anxiety is a long term trait found in an individual whereas state anxiety is a short term state. It has been found that some individuals have innate capability to cope with anxiety as compared to others.

State anxiety is defined as “subjective, consciously perceived feelings of apprehension and tension, accompanied by or associated with activation or arousal of the autonomic nervous system, and trait anxiety is defined as “a motive or acquired behavioral disposition that predisposes an individual to perceive a wide range of objectively non-dangerous circumstances as threatening and to respond to these with state anxiety reactions disproportionate in intensity to the magnitude of the objective danger” [5].

Other terms requiring clarity are cognitive and somatic anxiety. Cognitive anxiety is “conscious awareness of unpleasant feelings about oneself or external stimuli, worry, or disturbing visual images”, Somatic anxiety was then characterized as the perceived physiological elements of the anxiety experience that develop directly from autonomic arousal (i.e., rapid heart rate, clammy hands, & tense muscles) [6].

According to Unani Tib the temperament of the person encompasses emotional aspect, mental capacity moral attitudes, self-awareness, movements and dreams [7] and Phlegmatics/Balghami are represented as relaxed and thoughtful whereas Sanguine/Damvi as pleasure seeking and social able, which suggests that balghami can easily cope with anxiety as compare to Damvi persons due to their innate constitution. Hence a study was conducted to compare the anxiety level in balghami and damvi temperaments.

2. Materials and Methods

Subjects

The total hundred (50 Damvi and 50 Balghami) temperament males were selected for this study. The age of the selected subjects were ranged between 25 to 35 years.

Instruments

Investigators used the Anxiety State Test (AST) developed by Neary and Zuckerman (1976), to obtain data on sensation seeking of the subjects [8]. Assessment of temperament was based on Galen 10 parameters [9].

Procedure

The data were collected from the Damvi and Balghami temperament males. The tool consists of 15 statements regarding Anxiety State (AS). The scoring varies from 1 (not at all) to 5 (very much) for each item (range=15 to 75). It is a Likert type 5 points scale.

Statistical Analysis

The t test was used to determine the differences between Damvi and Balghami temperament score. Further the level of significance was set at 0.05 levels.

3. Observation and Results

Table 1: *Indicating Mean Differences between Anxiety State of Damvi and Balghami Temperament Males*

	Mean	SD	Cal. T
Damvi Temperament	54.42	6.92	3.235*
Balghami Temperament	51.36	5.56	

*Significant at 0.05 level of significance Tab t = 1.980

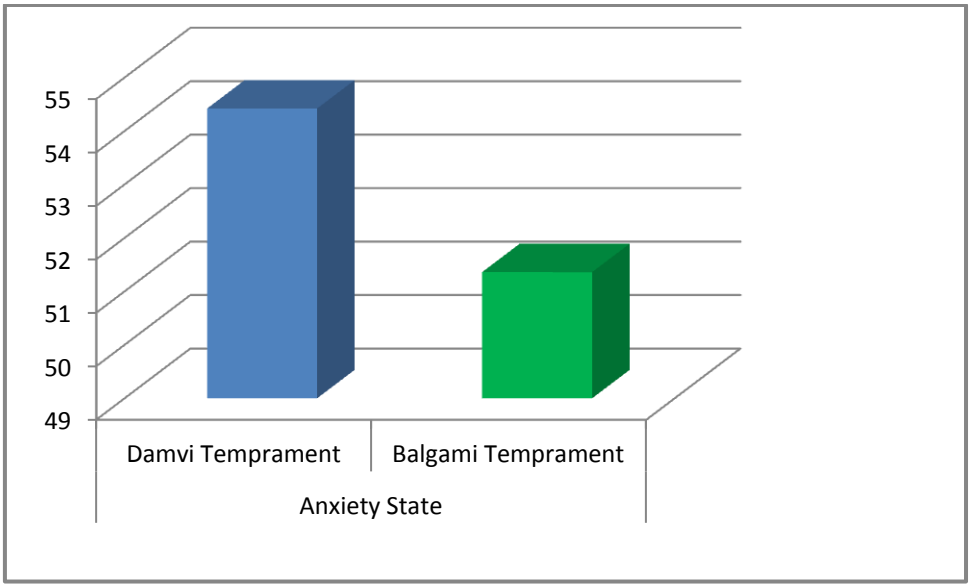

Figure 1*: Showing Graphical Representation of Mean Difference between Anxiety State of Damvi and Balghami Temperament Males*

4. Discussion

When we go through Table 1 and Figure 1 it is documented that calculated t was higher than tabulated t which indicated that there is significant difference between Damvi and Balghami temperament males in their anxiety state at 0.05 level of significance with 98 degree of freedom. The result of the study showed that there was a significant mean difference between Damvi and Balghami temperament in their anxiety state. Damvi males were found to have more anxiety state in comparison to Balghami males.

5. Conclusion

On the basis of obtained results it is concluded that there was a statistical significant difference between Damvi and Balghami temperament in their anxiety state. This means that people of Balghami temperament as compare to Damvi temperament can cope with anxiety in a better way. This stands true according to theory of Unani Tib.

References

[1] Bhika, R., 2000: *Tibb Traditional Roots of Medicine in Modern Routes to Health*. Mountain of S.A., South Africa, 59.

[2] Ahmad, S.I., 1980: *An Introduction to Umur Al Tabiyah Principles of Human Physiology in Tib.* Saini Printers, New Delhi. 54-58.

[3] David Osborn, 2007: *Greek Medicine the Four Temperaments.* http://greekmedicine.net/b_p/Four_Temperaments.html

[4] Barlow, D.H. *Unravelling the Mysteries of Anxiety and its Disorders from the Perspective of Emotion Theory*. American Psychologist. 2000. 55 (11) 1247-63.

[5] Spielberger, C., 1966: *Theory and Research on Anxiety.* In: Anxiety and Behavior: Spielberger (Ed). Academic Press, New York. 3-20.

[6] Morris, L., Davis, D., and Hutchings, C. *Cognitive and Emotional Components of Anxiety: Literature Review and Revised Worry- Emotionality Scale*. Journal of Educational Psychology. 1981. 73; 541-555.

[7] Lutz Peter, L., 2002. *The Rise of Experimental Biology: An illustrated History.* Humana Press. 60.

[8] Neary Zuckerman, M. *Sensation Seeking, Trait and State Anxiety and the Electrodermal Orienting Response.* Online Journal Psychophysiology. 1976. 13 (3) 205-211.

[9] Ahmad, S.I., 1980: *An Introduction to Umur Al Tabiyah Principles of Human Physiology in Tib.* Saini Printers, Delhi. 6; 59-63.

Cloud Publications
International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy
2014, Volume 3, Issue 1, pp. 209-212, Article ID Med-160
ISSN: 2320 – 0251

Research Article | Open Access

Siddha Medicine and Clinical Presentation of Dengue Fever at Tertiary Care Hospital of Chennai, Tamil Nadu, India

Sasi Kala M[1], Parthiban P[1] and Vijaya Kumar S[2]

[1]Department of General Medicine, Government Siddha Medical College, Chennai, Tamil Nadu, India
[2]Department of Pharmacy Practice, School of Pharmaceutical Sciences, Vels University, Tamil Nadu, India

Correspondence should be addressed to Sasi Kala M, sasisasikala2007@rediffmail.com

Publication Date: 26 September 2014

Article Link: http://medical.cloud-journals.com/index.php/IJAAYUSH/article/view/Med-160

Abstract Dengue fever is nowadays most common in metropolitan cities. It is an arthropod borne viral disease belongs to family flaviviridae, having four serotypes that spread by the bite of infected aedes mosquitoes. The present aim of the study to investigate outcome of dengue virus infection in patients on administration of Siddha herbal formulation (Nilavembu kudineeri). This prospective descriptive study was conducted in inpatients admitted at tertiary care hospital, with suspected dengue fever. However, case series was conducted at the department of Siddha medicine in collaboration with the general medicine department of MMC Hospital, Chennai, during the November-December months 2013 of Dengue fever. Clinically and serologically confirmed cases of dengue fever and who are willing to participate in the study were included. Data was analysed with graph pad prism version-5. Mean age of the patients was 34.37+17.54 years and majorities (15, 63%) were male. Seropositivity for dengue was found in 74%. The study did not find significant. Statistical associated with dengue seropositivity. Our study conclude that on administration of siddha herbal formulation (Nilavembu kudineeri) fever associated with chills and rigors, body aches, bone pain, headache, myalgia, rash, low platelet count, decreased TLC, raised serum ALT and Hemorrhagic manifestations are improved satisfactory in suspected dengue virus infection in 24 cases.
Keywords *Gender; Nilavembu Kudineeri; Fever; Platelet Count; Family*

1. Introduction

Dengue virus is a mosquito-borne virus (Flavivirus) spreads through Aedes aegypti mosquito. This mosquito is black in colour and lining on surface so it is called Tiger mosquito. These small (50 nm) viruses contain single-strand RNA. The virion consists of a nucleocapsid with cubic symmetry enclosed in a lipoprotein envelope [1]. The virus infects over 50 million people worldwide, resulting in over 24,000 deaths annually of people remain exposed to the disease across Africa, Eastern Mediterranean, Southeast Asia and Western Pacific region. It has 4 serotypes; infection with 1 serotype provides lifelong homotypic immunity, but there is only short-term cross-protective immunity against heterotypic serotypes. Though Dengue infections were reported in India since the late 1950s,

an upsurge in its activity has been noticed since the mid-1990s. India's population is twice that of Southeast Asia, these regions show the most dengue-related deaths. Dengue virus-specific antibodies, types IgG and IgM, can be useful in confirming a diagnosis in the later stages of the infection despite comparable environmental risk conditions, the number of reported cases and deaths in India is only a fraction of that reported in south-east Asia, In many regions of India, an increasing number of suspected cases of dengue are seropositive for IgM and IgG antibodies [2, 3]. Our study highlight that alternative system of medicine are to provide medicine or siddha herbal product which can cure dengue and should not be adversely affected the human body and kill the virus of dengue.

2. Materials and Methods

This case series was conducted at the department of Siddha medicine in collaboration with the general medicine department of MMC Hospital, Chennai, during the November-December months 2013 of Dengue fever. Data was collected from the inpatients admitted with Dengue fever in tertiary care hospital. The patients who presented with febrile illness, fulfilling the diagnostic criteria of Dengue fever according to World Health Organization and proven serologically positive for IgM, IgG anti Dengue antibodies (Confirmed by ELISA) or both and we who were administered with siddha medicine along with allopathy medicine were included in the study. (Nilavembu kudineeri) NVK were supplied in the dry extract form by the dealer and claimed to contain an equal proportion of 9 ingredients of (Andrographis paniculata (AP), Vetiveria zizanioides, Cymbopogon jwarancusa, Santalum album, Trichosanthes cucumerina, Cyperus rotundas L, Zingiber officinale, Piper nigrum and Mollugo cerviana in NVK. The patients who were suffering from fever and thrombocytopenia due to any chronic illness like aplastic anemia, acute leukemia, and chronic liver disease were excluded from the study. Clinical data was recorded that included symptoms, signs and laboratory investigations. The patients were thoroughly examined for vital signs, anthropometry, skin rash, hepatosplenomegaly, ascites and pleural effusion. Investigations performed were blood counts, peripheral film, liver function tests, abdominal ultrasonography, chest X ray and IgM, IgG Anti Dengue antibodies (by ELISA method). Patients were treated symptomatically with intravenous fluids, antipyretics, antibiotics and antimalarials where indicated. Patients were followed with repeated leukocyte and platelet counts daily until they were in the normal range. Data was analysed by graph pad prim version-5, p value <0.05 was considered significant.

3. Results and Discussion

Fever is caused as a secondary impact of infection, malignancy or other diseased states. It is the body's natural defence to create an environment where infectious agent or damaged tissue cannot survive. It leads to enhanced, formation of pro-inflammatory mediator's (Cytokines like Interleukin-1 1α β factor-alpha (TNFα and tumor necrosis)), which increase the synthesis of prostaglandin E2 (PGE 2) near peptic hypothalamus area, triggering the hypothalamus to elevate the body temperature. The inhibition of cyclooxygenase -2 (COX-2) expression leads to reduction in the elevated body temperature by inhibits PGE2 synthesis has reported as common mode of action of antipyretic agents [5, 6]. During the study period a total number of 39 patients admitted in different wards of tertiary care hospital whereas, we excluded 15 patients those who are not following the inclusion criteria. The mean age of our study populations was found to be 34.37+17.54 years. The region wise distribution of study population was assessed and found that 66%, where from rural and 33% urban background. Most of the patients belong to Hindu religion 58%, followed by Christian 25% and Muslims 17%. Furthermore, among the study population 67% were found to be married and unmarried 33%. Clinical features of all patient suffered from fever but no specific pattern could be identified degree was variable ranging from low to high grade. Abdominal pain was the next most

common symptom followed by vomiting and 87% patients complained of body aches and pains and 09% patients had hemorrhagic manifestations in the form of gum bleed and melena.

Neoandrographolide, one of the principal diterpene lactones, isolated from a medicinal herb Andrographis paniculata possesses significant anti-inflammatory effects [7, 8].

The most common clinical sign that we detected was the splenomegaly that was present in 54% of cases followed by pallor and then hepatomegaly 22%. Most of the patients 54% were from 17 to 30 years. Seropositivity (IgM) was found in 58% of the patients. Majority of patients had Hb less than <10gm%. Only 03 (12% patients) presented with Hb more than >10gm%. 58% patients had platelet count before administration of siddha medicine was found to be <50,000/cmm and after administration of siddha medicine [4] (Nilavembu kudineeri- 30ml) platelet count was increased 50,000 to 1,00,000/cmm. Not a single patient required platelet transfusion and no death encountered in this studies (Table 2 & 3).

Table 1: *Sociodemographic Details of the Dengue Fever Patients Characteristics*

Patient Characteristic	Number (N)	%
Number of patients included	24	62
Total mean age (Range)	34.37+17.54	
Mean age Male (Range)	31.93±15.65	
Mean age Female (Range)	36.20±20.63	
Gender		
Male	15	63
Female	9	38
Region		
Rural	16	66
Urban	8	33
Religion		
Hindu	14	58
Christian	06	25
Muslim	04	17
Marital status		
Married	16	67
Unmarried	08	33

Table 2: *Laboratory Investigation of the Dengue Patients*

Blood Chemistry	Number (N)	Percentage (%)
	Haemoglobin	
<10gm%	16	67
>10gm%	8	33
<7gm%	-	
	TLC /µL	
<4000	7	29
4000-11000	13	54
>11000	4	17
Platelets		
<50,000	14	58
50,000-1,00,000	8	33
1.00,000-1.5lakhs	2	08
	Age (in years)	
15-30	13	54

31-50	05	21
51-70	06	25
Anti-dengue antibodies		
Igm Border line	06	26
Igm Positive	18	74

Table 3: *Platelet Counts of Dengue Fever Patients on Administration of Siddha Medicine (Nilavembu kudineeri (30ml)*

Platelet Range	Without Siddha Medicine	With Siddha Medicine Nilavembu Kudineeri (30ml)
<50,000	14 (58%)	-
50,000-1,00,000	8 (33%)	22 (92%)
1.00,000-1.5 lakhs	2	2 (8%)

4. Conclusion

Our studies conclude that on administration of siddha herbal formulation (Nilavembu kudineeri). Fever associated with chills and rigors, body aches, bone pain, headache, myalgia, rash, low platelet count, decreased TLC, raised serum ALT and Hemorrhagic manifestations are improved satisfactory in suspected dengue virus infection in 24 cases.

References

[1] World Health Organisation. Dengue Guidelines, for Diagnosis, Treatment, Prevention and Control. Geneva, WHO. 2009. 787-1; 3-9.

[2] Duane, J., Gubler. *Dengue and Dengue Hemorrhagic Fever.* Clinical Microbiology Reviews. 1998. 11 (3) 480-496.

[3] Kalawat, U., Sharma, K.K., and Reddy, S.G. *Prevalence of Dengue and Chikungunya Fever and their Coinfection.* Indian J Pathol Microbiol. 2011. 54; 844 - 846.

[4] Shanmugavelu, M. Siddha Maruthuva Noi Naadal. Noi Muthal Naadal Thirattu, Part II 1988, Govt. of Tamilnadu. 84.

[5] Anbarasu, K., Manisenthil, K.K., and Ramachandran, S. *Antipyretic, Anti-Inflammatory and Analgesic Properties of Nilavembu Kudineer Choornam: A Classical Preparation Used in the Treatment of Chikungunya Fever.* Asian Pac J Trop Med. 2011. 4 (10); 819-823.

[6] Khan, A., Abdullahil Baki, M.D., Abdul Alim Al-Bari, M., Hasan, S., Ashik Mosaddik, M., Motiur Rahman, M., et al. *Antipyretic Activity of Roots of Laportea crenulata Gaud in Rabbit*. Res J Med Med Sci. 2007. 2; 58-61.

[7] Bang, J.S., Oh da, H., Choi, H.M., Sur, B.J., Lim, S.J., Kim, J.Y., et al. *Anti-inflammatory and Antiarthritic Effects of Piperine In Human Interleukin1 Beta-Stimulated Fibroblast-Like Synoviocytes and in Rat Arthritis Models.* Arthritis Res Ther. 2009.11; R49.

[8] Mujumdar, A.M., Dhuley, J.N., Deshmukh, V.K., Raman, P.H., and Naik, S.R. *Anti-inflammatory Activity of Piperine.* Jpn J Med Sci Biol. 1990. 43; 95-100.

Cloud Publications
International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy
2014, Volume 3, Issue 1, pp. 197-208, Article ID Med-163
ISSN: 2320 – 0251

Research Article | Open Access

Validation of Siddha Diagnostic Procedures for Madhu Piramiam with the Aid of Conventional Diagnostic Procedures

R. Susila[1], R. Arunadevi[2], G.J. Christian[3], S. Elansekaran[3], M. Ramamurthy[3] and M. Logamaniyan[3]

[1]Velumailu Siddha Medical College and Hospital, Sriperumbudur, Tamilnadu, India
[2]Department of Pharmacology, Captain Srinivasa Murti Research Institute for Ayurveda and Siddha Drug Development, CCRAS, Chennai, Tamilnadu, India
[3]Department of NOI Naadal, National Institute of Siddha, Tamilnadu, India

Correspondence should be addressed to R. Arunadevi, 30aruna@gmail.com

Publication Date: 12 July 2014

Article Link: http://medical.cloud-journals.com/index.php/IJAAYUSH/article/view/Med-163

Abstract The treatment of traditional system will be more valid if the disease is diagnosed by its own perspective. So the study was aimed to determine the sensitivity and specificity of the Siddha diagnostic methodology for madhu piramium (a condition of chronic glycosuria in diabetes mellitus with urogenital infection). Clinical study was conducted on persons having the disease madhu piramium by applying Siddha system of diagnosis by fixing inclusion and exclusion criteria. The following procedures namely *Wrist circummetric sign, shape of oil drop on urine* and *eight fold examination* namely Pulse, Tongue, Complexion, Voice, Eye, Body examination, Stool and Urine were used for the study. Odds ratio with 95% confidence interval (CI) was used for statistical analysis. Most of the patients had the wrist circumference of 9 ½ Finger units. Significant number of patient`s urine, the drop of oil took the form of sieve. Eight fold examinations revealed significant number of patients had hard pulse appraisal and pulse play was of *pitha vatham* than healthy volunteers. Tongue examination revealed tastelessness and decreased salivation. Increase in body temperature and pain on palpation were observed in significant number of patients. Patient`s urine samples were cloudy foul smelling, frothy, higher in density, polyuria and with deposits. So it can be concluded that the following Siddha procedures in combination namely *Wrist circummetric sign*, *shape of oil drop on urine* and *eight fold examinations* differentiates the patients of madhu piramium from the healthy volunteers.

Keywords *Siddha System; Wrist Circummetric Sign; Shape of Oil Drop on Urine; Eight Fold Examination; Diagnosis*

1. Introduction

Siddha system is an ancient medical practice at par with the Ayurvedic system and mainly practiced in south India [1]. Siddha diagnosis is based on patient examination for signs and symptoms and its correlation with environment and chronology. This system states that the Human body is made up of

Vatham, Pitham and Kapham. These three are part of the environment and formed by the combination of the five basic elements. Vatham is formed by combination of air and space, possessing their characters. Pitham is formed by Fire. This is the Force of Preservation. Kapham is formed by Earth and Water. This is the Destructive Force. In healthy state, these three humors are in the ratio of 1(one): ½(half): ¼(quarter) in equilibrium. They are called the life forces or humours and are explained in pathinen siddhar naadi sasthiram [2]. Indian system of medicine and conventional western medicine are based on different sets of logical axioms. It is difficult to identify precise correspondences between related disease entities within two systems of disease classification. Siddha diagnosis is unique in individualization with respect to locate the vitiation of three humours of an individual`s constitution and not generalized [3, 4, 5, 6]. Sage Yugi classified diseases mainly based on signs and symptoms and three humours. This system of diagnosis tells about the prognosis of the condition too. In the Classical Siddha scripts different diagnostic procedures and symptoms of the various diseases are mentioned. The method of measuring Wrist circummetric sign and the interpretation of different measurements are clearly mentioned in the text of Padhinen Siddhar Naadi Nool [7]. The procedure of spreading pattern of oil on urine and the interpretation of the outcomes are clearly mentioned by Agathiyar and Theraiyar [8]. Eight fold examinations, a kind of systemic examination [9], includes examining the pulsation, tongue, complexion, Voice, eye, examination of body for temperature and locating pain, stool and Urine. The present study was planned to validate the diagnostic procedures of Siddha system to diagnose madhu piramium with the aid of conventional clinical diagnostic procedures. Madhu Piramiam (a condition of chronic glycosuria induced urogenital exudation) a disease of male with known diagnosis and prognosis was selected for the study. Madhu piramiam is a type of Piramiam, which usually presents with symptoms of dysuria, urogenital discharge, ulceration in urogenital tract, bad odour, emaciation of the body, tastelessness, dryness of tongue and drowsiness [10]. It can be correlated with disease having the symptom of urogenital discharge of male patients with glycosuria in diabetes mellitus. In the scripts of Siddha the disease is the result of increased Vaadha pitham. The following procedures, taken for the study namely *Wrist circummetric sign*, *shape of oil drop on urine* and *eight fold examinations* were considered for this study. The treatment in traditional system will be more valid if the disease is diagnosed by its own perspective. So the present study was carried out to validate the Siddha diagnostic procedure for madhu piramiam.

2. Materials and Methods

2.1. Selection of Patients

A total number of 30 diagnosed patients of clinical glycosuria with urogenital discharge were randomly selected for this study with the help of inclusive and exclusive criteria. 30 healthy volunteers were also selected for comparison. For this purpose, 100 patients were screened from the outpatient of Noi Naadal Department of Ayothidoss Pandithar hospital of National Institute of Siddha, Thambram Sanatorium, Chennai-47.

2.2. Criteria for Inclusion

Age between 20 years to 60 years, having blood sugar range of more than 150 mg% (fasting) and more than 200 mg% (post prandial), Dysuria, Urogenital (penile) discharge, Laboratory findings of glycosuria and history of glycosuria in the last one month. Among these criteria at least three out of five were considered for selection.

2.3. Criteria for Exclusion

Age below 20 years and above 60 years, serious complications associated with any other systemic diseases.

2.4. Study Enrollment

Patients were informed about the study and a written consent was obtained for this study. Complete clinical history, complaints, duration and examination findings were recorded in a prescribed format in history and clinical assessment forms separately.

2.5. Clinical Parameters

Conventional diagnostic parameters used for screening the patients were complete haemogram, blood sugar (Fasting and Post Prandial), urea, creatinine, SGOT, SGPT, serum protein (albumin and globulin), lipid profile (to know the involvement of other system for exclusion) and urine culture.

2.6. Wrist Circummetric Sign

To measure the wrist circumference in finger units, the patient was asked to keep his left hand`s four fingers just below the right thumb, then the doctor measured the circumference of the right wrist just below four fingers of the left hand of the patient using a twine, then the twine was removed from the wrist and placed on a plain surface and the measurement of the twine was taken by the patient's fingers (Figure 1 and 2). Total length of thread was counted in terms of finger units.

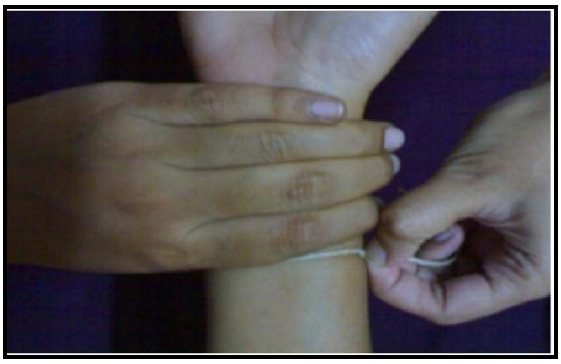

Figure 1: *Location of Measuring Wrist Circumference*

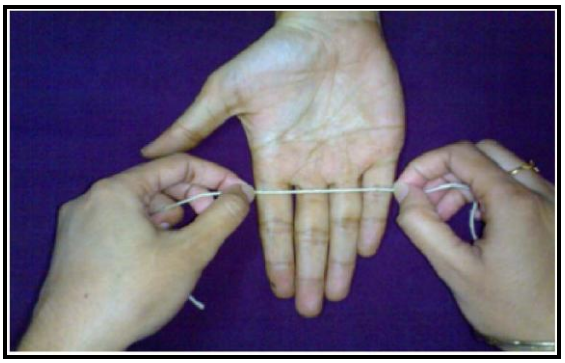

Figure 2: *Measurement of Length of the Twine with Finger Units*

2.7. Shape of Oil Drop on Urine

To maintain uniformity, every patient was advised to sleep early (before 9 PM) with usual intake (2 to 3 glasses) of water during the dinner. Before sunrise, around 5 AM, patients were asked to collect the mid stream urine of the first urination of the day in a clean and neat bottle. Urine thus collected was poured in a round wide mouthed glass bowl (4-5 inches in diameter and 1.5 inch depth), kept on a flat surface and is allowed to settle. After ascertaining that the urine is stable and devoid of wave or ripples or other influence of the wind, the urine was examined in day light at 6.30 AM. *Sesame oil* was then taken in a dropper and one drop of the oil was dropped over the surface of urine slowly (keeping a distance of 1 mm from the surface of the urine to the lower end of the oil drop) without disturbing/touching the surface. It was then left for a few minutes, and the oil drop spreading pattern on the urine was observed. The inferences were then recorded.

2.8. Eight Fold Examinations

Pulse was examined on right wrist of male and felt for the strength of Vatham, Pitham and Kapham. The overall qualities of pulse like pulse appraisal, pulse character and pulse play were assessed. Vatham is felt in the first finger, Pitham in the middle finger and Kapham under the ring finger. Pulse was characterized for its pulse appraisal, pulse character and pulse play (based on the type of movement like snake etc. pulse play is characterized) such as Pitha vaadham, Vaadha pitham and kabha pitham. Tongue was examined for appearance, color, taste and salivary secretion. Patient`s complexion and voice were examined. Eyes were examined for color, secretions and congestion. Body examination was done to know the warmth of the body, sweating and presence of pain. Stool was examined for its consistency. Urine was examined for colour, odour, frothiness, density, quantity and deposits.

2.9. Ethical Issues

This study was approved by institutional ethical committee. F. No.NIS/6-20/Res/IEC/10-11 dated 29/11/2010.

2.10. Statistical Analysis

Results of the clinical parameters were expressed as mean ± SD. Data obtained from Siddha system of diagnosis for patients and healthy volunteers was analyzed using Chi-Square statistics followed by Fisher`s exact test for p value calculation. Odds ratio and 95% confidence interval (CI) were used to distinguish the patient from healthy individuals [11]. Data was computed for statistical analysis using the Graph pad prism software. Difference between the data was considered significant at $p < 0.05$.

3. Results

The clinical parameters used for screening the Madhu piramiam are given in Table 1, where healthy volunteers were taken for comparison. Total count, Lymphocytes, erythrocyte sedimentation ratio, fasting and post prandial blood glucose, VLDL and triglyceride were higher than the normal healthy volunteers.

Table 1: *Clinical Picture of Madhu Piramiam Patients and Healthy Volunteers*

Category	Laboratory Investigations		Patients	Healthy Individuals
Clinical laboratory parameters	Total count Cells/ Cu. Mm		7703.66±1830.1	6400±1445.3
	DC in %	P	58.36±10.02	54.93±8.99
		L	35.9±8.01	41.16±8.44
		E	4.03±5.38	3.73±2.11
	ES	½ h	12.33±12.36	2.96±2.38
		1h	18.8±17.67	5.93±4.77
	Hb g%		12.16±1.47	12.37±1.06
	Blood glucose mg/dl	F	174.3±52.25	75.53±6.93
		PP	288.16±73.35	98.2±14.82
	SGPT		27.43±7.45	26.43±5.50
	SGOT		26.96±11.57	23.26±6.78
	Urea		26.03±10.01	23.75±4.45
	Creatinine		0.72±0.22	0.66±0.07
	Lipid profile	Total cholesterol	189.6±41.82	179.2±41.13
		HDL	46.9±17.67	39.2±4.77
		LDL	105.93±37.47	121.93±36.78
		VLDL	39.93±27.74	20.53±9.64
		Triglyceride	153±79.04	100.6±48.50

Note: N =30, Values are in mean ±SD.

Out of 30 cases, 76.67% of the cases had urine culture test positive, 20% of the cases had urine culture test negative, 3.33% of the cases have not given the sample. In healthy volunteers, 100% of the subjects had urine culture test negative. 20% of urine culture negative patients were under antibiotic treatment. Statistical analysis of urine culture revealed that significant number of patients urine were positive for bacterial load (odds ratio 191, 95% CI, 10-352, p<0.0001).

Table 2 shows the results of *wrist circummetric sign* examination. In this study most of the patients were having the wrist circumference of 9 ½ finger units. Odds ratio for the patients having the wrist circumference of 9 ½ finger unit is 6 (95% CI, 1.89-19.05, p<0.01), whereas significant number of healthy volunteers were having the wrist circumference of 9 ¾ finger units (p<0.05, Odds ratio 0.09, 95% CI, 0.01-0.81) and 10 ¼ finger units (p<0.01, odds ratio 0.10, 95% CI, 0.02-0.53).

Table 2: *Outcome of the Manikadai Nool Examination of Madhu Piramiam Patients and Healthy Volunteers*

S. No.	Wrist Circumference	Patient (n=30)	Healthy Volunteers (n=30)	Odds Ratio with 95% CI
1	8 ½	1	1	1 (0.059-16.78)
2	9	6	1	7.25 (0.81-64.49)
3	9 ¼	2	2	1 (0.13-7.60)
4	9 ½	18	6	6 (1.89-19.05)**
5	9 ¾	1	8	0.09 (0.01-0.81)*
6	10 ¼	2	12	0.10 (0.02-0.53)**

Note: * indicates p<0.05, ** indicates p<0.01 when compared to healthy volunteers. CI, confidence Interval

Table 3 shows the results of *shape of oil drop on urine* examination. Significant number (p<0.05) of patient`s urine, the drop of oil took the form of sieve (Figure 3) (odds ratio 12.43, 95% CI, 1.46-105.8). Most of the healthy people`s urine, the oil drop took the form of slow dispersion (Figure 4) (odds ratio 0.02, 95% CI, 0.056-0.721, p<0.05).

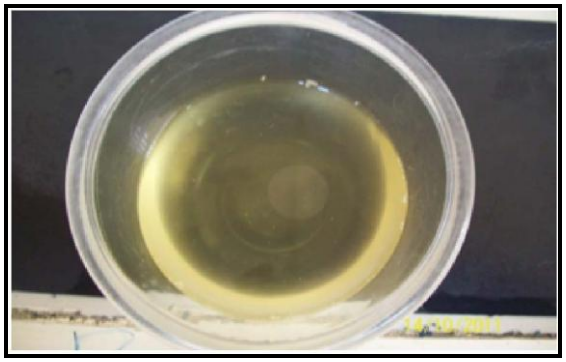

Figure 3: *Shape of Oil Drop on Urine in the form of Slow Dispersion*

Figure 4: *Shape of Oil Drop on Urine in the form of Sieve*

Table 3: *Outcome of Shape of Oil Drop on Urine Examination of Madhu Piramiam Patients and Healthy Volunteers*

S. No.	Shape of Oil on Urine	Patient (n=30)	Healthy Volunteers (n=30)	Odds Ratio with 95% CI
1	Pearl	4	3	1.4 (0.28-6.8)
2	Slow dispersion	17	26	0.20 (0.056-0.72)*
3	Sieve	9	1	12 (1.5-106)*

Note: * indicates p<0.05 when compared to healthy volunteers. CI, confidence Interval

Table 4 shows the observations of eight fold examination.

Table 4: *Outcome of Eight Fold Examination of Madhu Piramiam Patients and Healthy Volunteers*

Variables			Patients (n=30)	Healthy Volunteers (n=30)	Odds Ratio with 95% CI
1. Naadi (Pulse)	Naadi nithanam (Pulse appraisal)	Vanmai (Hard)	23	10	6.6 (2.1-20)**
		Menmai (Soft)	7	20	0.15 (0.049-0.47) **
	Naadi Panbu (Pulse character)	Kathithal (normal rhythm)	3	12	0.17 (0.041-0.68)*
		Illaithal (Waning)	22	13	3.6 (1.2-11)*
		Kuthithal (Jumping)	3	0	7.8 (0.38-157)
		Thullal (Hopping)	2	5	0.36 (0.064-2)
	Naadi nadai (Pulse play)	Pitha Vatham	16	5	5.7 (1.7-19)**
		Vatha pitham	13	24	0.19 (0.061-0.60)**
		Kaba pitham	1	1	1 (0.06-17)

2. Naa (Tongue)	Thanmai (Appearance)	Maapadithal (deposits)	3	2	1.6 (0.24-10)
		Veddippu (Fissured)	2	2	1 (0.13-7.6)
		Maapadithal & vedippu	2	1	2.1 (0.18-24)
		Normal	23	25	0.66 (0.18-2.4)
		Manjal (Yellow)	2	0	5.4 (0.25-116)
		Velluppu (Pale)	5	7	0.66 (0.18-2.4)
	Suvai (Taste)	Pulippu (Sour)	3	1	3.2 (0.32-33)
		Kaippu (Bitter)	7	2	4.3 (0.81-23)
		Inippu (Sweet)	0	0	1 (0.019-52)
		Normal	10	27	0.056 (0.014-0.23)****
		Tastelessness	10	0	31 (1.7-564)***
	Vainer ooral (salivation)	Normal	9	20	0.21 (0.072-0.64)**
		Increased	0	5	0.076 (0.0046-1.4)
		Decreased	21	5	12 (3.4-40)****
3. Niram (complexion)		Karuppu (Dark)	9	10	0.86 (0.29-2.5)
		Manjal (Yellow)	1	0	3.1 (0.12-79)
		Velluppu (Pale)	2	2	1 (0.13-7.6)
		Wheatish	18	18	1 (0.36-2.8)
4. Mozhi (voice)		Thanindhaoli (Low Pitch)	6	5	1.3 (0.34-4.6)
		Urathaoli (High Pitch)	6	7	0.82 (0.24-2.8)
		Samaoli(Normal pitch)	18	18	1 (0.36-2.8)
5. Meikuri (Palpation)	Veppam (Warmth)	Mitha veppam (Warm)	21	22	0.85 (0.28-2.6)
		Migu veppam (Feverish)	9	2	6 (1.2-31)*
		Thatpam (Normal temperature)	0	6	0.062 (0.0033-1.2)*
	Viyarvai (Sweating)	Normal	25	24	1.3 (0.34-4.6)
		Increased	5	6	0.80 (0.22-3.0)
	Thodu vali (Tenderness)	Absent	10	30	0.0084 (0.00047-0.15)****
		Present	20	0	119 (6.6 -2148)****
6. Vizhi (eye)	Niram (Colour)	Karuppu (Muddy)	0	0	1 (0.019-52)
		Manjal (Yellow)	1	2	0.48 (0.041-5.6)
		Sivappu (Red)	4	3	1.4 (0.28-6.8)
		Vellupu (pallor)	2	2	1 (0.13-7.6)
		No discolouration	23	23	1 (0.30-3.3)
	Thanmai (appearance)	Peelai serthal only	4	5	0.77 (0.18-3.2)
		Increased kanner only	0	2	0.19 (0.0086-4.1)
		Erichal only	0	1	0.32 (0.013-8.2)
		Peelai serthal& kaneer	0	0	1 (0.019-52)
		Peelai serthal & Erichal	0	0	1 (0.019-52)
		Erichal & kaneer	1	3	0.31 (0.03-3.2)
		All three	0	0	1 (0.019-52)
		Normal	25	19	2.9 (0.86-9.7)
7. Malam (stool)	Thanmai (appearance)	Sikkal only	3	2	1.6 (0.24-10)
		Siruthal only	3	2	1.6 (0.24-10)
		Seetham	1	1	1 (0.06-17)
		kalichal	1	0	3.1 (0.12-79)
		Vemmai only	2	0	5.4 (0.25-116)
		Siruthal,sikkal,vemmai	1	0	3.1 (0.12-79)
		Normal	19	25	0.35 (0.10-1.2)
	Niram (Colour)	Karuppu (Dark)	0	0	1 (0.019-52)
		Manjal (normal)	28	30	0.19(0.0086-4.1)
		Vellupu (Pallor)	2	0	5.4 (0.25-116)

8. Moothiram (Urine)	Niram (Colour)	Paleyellow (ilamanjalniram)	18	30	0.024 (0.0014-0.43)***
		Cloudy urine	12	0	41 (2.3-739)***
	Manam (Smell)	Mild aromatic	6	15	0.25 (0.079-0.79)*
		Bad odour	20	0	61 (3.3-1115)****
		Ammoniacal	4	15	0.15 (0.043-0.55)**
	Nurai (Frothy)	Absent	15	28	0.071(0.014-0.36)***
		Present	15	2	14 (2.8-70)***
	Edai (Density)	Normal	18	30	0.024 (0.0014-0.43)***
		Increased	12	0	41 (2.3-739)***
	Alavu (amount and frequency)	Normal	8	30	0.0062(0.00034-0.11)****
		Polyuria	20	0	61 (3.3-1115)****
		Oliguria	2	0	5.4 (0.25-116)
	Enjal (Deposit)	Present	12	0	41 (2.3-739)***
		Absent	18	30	0.024 (0.0014-0.43)***

Note: *p-value <0.05, **p-value <0.01, ***p-value <0.001, ****p-value <0.0001, CI, confidence Interval

This examination revealed the significant number of patients ware having hard pulse appraisal (odds ratio 6.5, 95% CI, 2.108-20.48, p<0.01). In case of pulse character most of the patients were having waning pulsation (odds ratio 3.6, 95% CI, 1.2-11, p<0.05). Whereas significant number of healthy volunteers were having normal rhythm (odds ratio 0.16, 95% CI, 0.041-0.675, p<0.05) compared to patients. Majority of the patient`s pulse play was of pitha vaadham than healthy volunteers (odds ratio 5.71, 95% CI, 1.72-18.95, p<0.01). However in healthy volunteers, most of the persons were having vaadha Pitham (odds ratio 0.19, 95% CI, 0.06-0.60, p<0.01). Examination of tongue revealed tastelessness (odds ratio 31.24, 95% CI, 1.73-563.6, p<0.001) and decreased salivation (odds ratio 11.67, 95% CI, 3.38-40.23, p<0.0001). Complexion and voice were of no diagnostic significance. In case of body examination, increase in body temperature (odds ratio 6, 95% CI, 1.17-30.74, p<0.05) and pain on palpation (odds ratio 119.1, 95% CI, 6.60-2148, p<0.05) were observed in significant number of patients than healthy volunteers. Stool examination was not of diagnostic significance. Urine examination revealed patient`s urine samples were having cloudy (odds ratio 41.22, 95% CI, 2.30-738.5, p<0.001), foul smelling (odds ratio, 119.1, 95% CI, 6.603-2148, p<0.0001), frothy (odds ratio, 14, 95% CI, 2.817-69.59, p<0.001), higher in density (odds ratio, 41.22, 95% CI, 2.30-738.5, p<0.0001), polyuria (odds ratio, 119.1, 95% CI, 6.603-2148, p<0.0001) and with deposits (odds ratio,41.22, 95% CI, 2.30 -738.5, p<0.0001).

4. Discussion

There are many studies available for comprehensive effectiveness of traditional medicine with conventional treatment for specific disease entities [12]. This study is new in its way to validate traditional diagnostic procedures for specific disease entity where the knowledge and skills are more valued than equipments and reagents. *Wrist circummetric sign* is one of the many tools used in Siddha practice. The progress of the disease is calculated by the number of fingers in decreasing order. Lower the value poorer the prognosis. Usually, the length of the twine starts with four fingers and ends with 11 fingers. In this study we observed significant number of patient`s wrist circumference of 9 ½ finger units. Siddha literatures state that 9 ½ finger unit is the sign of emaciation, one of the symptoms of Madhu Piramiam. Several literatures state the importance of wrist circumference with respect to the endocrine system and disease conditions. A study states that hyper insulinemia is associated with increased bone mass [13, 14]. Recent studies from independent laboratories show that the insulin regulatory system mediates communication between metabolic control and bone remodeling [15, 16]. The circumference of the wrist could be a good parameter to analyze bone metabolism in relation to hyper insulinemia because the IGF-1 (Insulin like growth factor-1) levels are major determinant of bone geometry as demonstrated by their direct relationship

with cross sectional area of bone. Recent literatures describe the wrist circummetric sign is an easy-to-detect bone anthropometric marker. Historically this has been included in the calculation of frame size, which is a parameter in evaluating the free fat mass to correct mis-classification introduced by the use of body mass index [17, 18]. Contrary to the body mass index, this wrist circummetric sign compares the two parts of the body (wrist and finger size), which are not influenced by variations of body fat, indicating the disease status attracts future research in this area. Possible explanations other than calcification status namely, hydration status, swollen fingers and emaciation are considered. In case of *shape of oil drop on urine*, similar diagnostic procedures are avaliable in Ayurvedic system too namely thaila bindhu pariksha. Though *shape of oil drop on urine* seems to be a crude procedure, it is time tested and has been in practice for more than 2000 years. There are studies stating the importance of shape, spreading nature and direction of spreading of oil drop on urine and its diagnostic significance [19]. Several researches hypothesis that the spreading pattern of oil is mainly influenced by the surface active molecules and other metabolites present in the urine which are normally not recordable and they determine the spreading pattern of oil. The interfacial tension between the surface active molecules and the oil may provide possibilities of different shapes, speed and extent of spread [20]. A study states that the cyclical variation of surface tension of urine recorded in female corresponds closely to the menstrual cycle. These findings support that the difference in hormone levels have an impact on the surface tension of the urine [21]. Another study stating that the shape of the oil drop is affected in conditions of increased levels of FBS, PPBS, blood urea, urine specific gravity, albuminuria, glycosuria, DM neuropathy and DM retinopathy [22]. Nowadays specific diseases or group of diseases taking common patho-physiological outcome are identified by specific markers present in the biological fluids which may decide the outcome of the shape and direction of the oil drop, attracts further research in this direction. As per the Siddha concept, the spreading nature of a single drop of oil on the surface of the urine indicates the imbalance of specific humour and prognosis of the disease. In this study, the spreading pattern of oil on urine was in the form of sieve. Sieve pattern of spreading, according to the scripts indicates the incurable nature of the disease [8]. Another study states that the sieve pattern of spreading indicates the disease of genetic origin [19]. Eight fold examinations consist of examining eight areas of body and bodily functions, all of which reveal the places of balance and imbalance. Pitham is primarily responsible for initiating the disease process of Madhu Piramiam. In this study, significant numbers of patients were having hard waning pulsation and the pulse play of pitha Vatham. The pulse examination of healthy volunteers revealed to be in physiological state with respect to body nature, sex and age. Oral examination of the patients revealed tastelessness and decreased salivation. As per literature, dry tongue is a sign of vaadha humour derangement. Bodily examination revealed that the affected area was hot to touch and painful on palpation. Affected person`s urine was cloudy, foul smelling, higher in density, polyuria and with deposits. Theraiyar, one of the renowned authors of Siddha medicine described urine examination and stages of health. He had explained about the colour and consistency of the urine in vitiated humor and disease. He also emphasized the spreading nature of single drop of oil on urine [8]. In contrast to the conventional techniques, mean value based medical strategies are avoided in the constitution based traditional approach. Pathogenic disharmonies are classified in terms of dynamic traditional principles which cannot be directly equated with modern entities. Further more healthy states and disease are seen as a continuum in traditional Indian system. Diagnosis is believed to be the definition of snapshot with in a constant flow of physiological and pathophysiological factors [23]. Our traditional system of medicine was persistently criticized for its ambiguity. This perception unfortunately has led the world to be deprived of many plausible advantages of traditional health care supportive to a total quality life [24, 25, 26, 27]. The primary understanding of traditional knowledge followed by a search in to scientific linkage will be more appropriate for complementary medicine [28]. So this system of diagnosis identifies the location of vitiation of humours and giving the ways for their correction.

5. Conclusion

It can be concluded that the Siddha diagnostic procedures (*Wrist circummetric sign*, *shape of oil drop on urine* and *eight fold examinations)* differentiates the patients of madhu piramium from the healthy volunteers. These cost effective tools not only help in diagnosis but also indicates the prognosis of the disease and for reassuring the patient to be informed about the nature of disease. There exists general criteria that diagnosis be made using conventional methods and the traditional system of medicine is approached only for the treatment. Diagnosis in traditional system will prove to be a cost effective, in-hand method for common people. If studies like this help in validating the diagnosis in traditional systems and the ambiguity arising due to any differences can be minimized.

Acknowledgement

Authors are highly thankful for the Join Secretory, Department of Ayush, Director, National institute of Siddha and Director General, CCRAS for providing facility to carryout the work.

References

[1] Krishnamoorthy, K.H., and Chandramouli, G*. Siddha System of Medicine: a Historical Appraisal.* Indian Journal of History of Science*.* 1984. 19 (1) 43-53*.*

[2] Shanmugavelu, M., 2003: *Noinaadal noi mudhal naadal Thiratu*, Part II, Indian Medicine and Homeopathy department, Tamil Nadu State Government, Arumbakkam Chennai-600106. 156.

[3] Bhushan, P., Kalpana, J., and Arvind, C. *Classification of Human Population Based on HLA gene Polymorphism and the Concept of Prakriti in Ayurveda.* Journal of Alternative and Complementary Medicine. 2005. 11; 349-353.

[4] Ghodke, Y., Joshi, K., and Patwardhan, B. *Traditional Medicine to Modern Pharmacogenomics: Ayurveda Prakriti Type and CYP2C19 Gene Polymorphism Associated with the Metabolic Variability.* Evidence-Based Complementary and Alternative Medicine. 2011. 2011; 249528.

[5] Prasher, B., Negi, S., Aggarwal, S., Mandal, A.K., Sethi, T.P., Deshmukh, S.R., Purohit, S.G., Sengupta, S., Khanna, S., Mohammad, F., Garg, G., and Brahmachari, S.K. *Indian Genome Variation Consortium, Mukerji M Whole Genome Expression and Biochemical Correlates of Extreme Constitutional Type Defined in Ayurveda.* Journal of Translational Medicine. 2008. 6; 48.

[6] Rizzo-Sierra, C.V. *Ayurvedic Genomics, Constitutional Psychology and Endocrinology: The Missing Connection.* Journal of Alternative and Complementary Medicine. 2011. 17; 465-468.

[7] Shanmugavelu, M., 2003: *Noinaadal noi mudhal naadal Thiratu*. Part II, Indian Medicine and Homeopathy Department, Tamil Nadu State Government, Arumbakkam Chennai-600106. 345.

[8] Shanmugavelu, M., 2003: *Noinaadal noi mudhal naadal Thiratu*. Part II, Indian Medicine and Homeopathy department, Tamil Nadu State Government, Arumbakkam Chennai-600106. 282.

[9] Shanmugavelu, M., 2003: *Noinaadal noi mudhal naadal Thiratu*. Part II, Indian Medicine and Homeopathy department, Tamil Nadu State Government, Arumbakkam Chennai-600106. 269.

[10] Anandhan, A., 2005: *Ygimunivar, Yugi vaithiya sindhamani*. Indian Medicine and Homeopathy Department, Tamil Nadu State Government, Arumbakkam Chennai-600106. 143.

[11] Magdalena Szumilas. *Explaining Odds Ratio*. Journal of the Canadian Academy of Child and Adolescent Psychiatry. 2010. 19 (3) 227-229.

[12] Claudia M. Witt, Andreas Michalsen, Stephanie Roll, Antonio Morandi, Shivnarain Gupta, Mark Rosenberg, Ludwig Kronpaß, Elmar Stapelfeldt, Syed Hissar, Matthias Müller and Christian Kessler. *Comparative Effectiveness of a Complex Ayurvedic Treatment and Conventional Standard Care in Osteoarthritis of the Knee-Study Protocol for a Randomized Controlled Trial*. Trial. 2013. 14; 149.

[13] Stolk, R.P., Van Daele, P.L., Pols, H.A., Burger, H., Hofman, A., Birkenhäger, J.C., Lamberts, S.W. and Grobbee, D.E. *Hyperinsulinemia and Bone Mineral Density in an Elderly Population: The Rotterdam Study*. Bone. 1996. 18 (6) 545-549.

[14] Kinjo, M., Setoguchi, S., and Solomon, D.H. *Bone Mineral Density in Adults with the Metabolic Syndrome: Analysis in a Population-Based US Sample*. The Journal of Clinical Endocrinology & Metabolism. 2007. 92 (11) 4161-4164.

[15] Fulzele, K., Riddle, R.C., DiGirolamo, D.J., Cao, X., Wan, C., Chen, D., Faugere, M.C., Aja, S., Hussain, M.A., Brüning, J.C., and Clemens, T.L. *Signalling in Osteoblasts Regulates Postnatal Bone Acquisition and Body Composition.* Cell. 2010. 23 (142) 309-319.

[16] Ferron, M., Wei, J., Yoshizawa, T., Del Fattore, A., DePinho, R.A., Teti, A., Ducy, P., and Karsenty, G. *Insulin Signaling in Osteoblasts Integrates Bone Remodeling and Energy Metabolism*. Cell. 2010. 23 (142) 296-308.

[17] Mora, S., Pitukcheewanont, P., Nelson, J.C., and Gitsanz, V. *Serum levels of IGF-1 and the Density Volume and Cross-Sectional Area of Bone in Children.* Journal of Clinical Endocrinology and Metabolism. 1999. 84; 2780-2783.

[18] Marco Capizzi, Gaetano Leto, Antonio Petrone, Simona Zampetti, Raffaele Edo Papa Marcello Osimani, Marialuisa Spoletini, Andrea Lenzi, John Osborn, Marco Mastantuono Andrea Vania and Raffaella Buzzetti. *Wrist Circumference is a Clinical Marker of Insulin Resistance in Overweight and Obese Children and Adolescents*. Circulation. 2011. 123; 1757-1762.

[19] Sangu, P.K., Kumar, V.M., Shekhar, M.S., Chagam, M.K., Goli, P.P., and Tirupati, P.K. *A Study on Tailabindu Pariksha–An Ancient Ayurvedic Method of Urine Examination as a Diagnostic and Prognostic Tool.* AYU. 2011. 32 (1) 76-81.

[20] Anukul, C.K., Reetu, S., Bimal, K.P., and Virendra, P. *A Study on the Method of* Taila Bindu Pariksha *(Oil Drop Test)*. AYU. 2012. 33 (3) 396-401.

[21] Perryman, P.W., and Selous, C.F. *Some Physiological and Physical Aspects of the Surface Tension of Urine*. Journal of Physiology. 1935. 85; 128-144.

[22] Ekka, R., Chandra, K.A., and Upadhyay, B.N. *Assessment of Prognostic Aspects of Pramega (Diabetes Mellitus) by Thaila Bindhu Pariksha.* International Ayurvedic Medical Journal. 2013. 1 (2).

[23] Joses, M.K. *Pharmacoeconomics of Traditional Medicine*. African Health Monitor (A WHO Magazine). 2003. 4 (1) 22-23.

[24] Dash, V., Sharma, R.K., 2001: *Caraka Samhita: Text with English Translation and Critical Exposition Based on Cakrapani Datta`s Ayurveda Dipika New Delhi*. Chaukhmba Sanskrit Series Office.

[25] House of Lords Select Committee on Science and Technology. Complementary and Alternative Medicine 2000 Session 1999-2000 6th Report, the Stationary Office London.

[26] Mclintyre, M.A. *The House of Lord Select Committee`s Report of CAM.* Journal of Alternative and Complementary Medicine. 2001. 7; 9-11.

[27] Wootton, J.C. *Sprit of Enquiry*. Journal of Alternative and Complementary Medicine. 2001. 7; 609-611.

[28] Rastogi, S. *Ayurveda for Comprehensive Healthcare*. Indian Journal of Medical Ethics. 2009. 6; 101-102.

[29] Sanjeev, R. *Building Bridges between Ayurveda and Modern Science*. International Journal of Ayurveda Research. 2010. 1 (1) 41-46.

Cloud Publications
International Journal of Advanced Ayurveda, Yoga, Unani, Siddha and Homeopathy
2014, Volume 3, Issue 1, pp. 213-218, Article ID Med-171
ISSN: 2320 – 0251

Research Article | Open Access

Single Drug Treatment for Chronic Kidney Disease – A Case Study

D.M. Padavi[1], Amarsing Rathod[2] and Santosh Chavhan[3]

[1]Department of Kayachikitsa, Dr. D.Y. Patil College of Ayurved and Research Institute, Nerul, Navi Mumbai, Maharashtra, India
[2]Department of Shalya Tantra, Dr. D.Y. Patil College of Ayurved and Research Institute, Nerul, Navi Mumbai, Maharashtra, India
[3]Department of Rog- Nidan, Dr. D.Y. Patil College of Ayurved and Research Institute, Nerul, Navi Mumbai, Maharashtra, India

Correspondence should be addressed to D.M. Padavi, dmpadavi@gmail.com

Publication Date: 14 October 2014

Article Link: http://medical.cloud-journals.com/index.php/IJAAYUSH/article/view/Med-171

Abstract Punarnava matured whole plant of Boerhaavia diffusa Linn. (Fam Nyctaginaceae), trailing herb found throughout India and collected after rainy season, herb is diffusely branched with stout root stock and many long slender, prostrate or ascending branches. The name says “pun-nava” means new again; Punarnava can rejuvenates the dying cells and helps to revive the dying organs of the body. Kidneys are the organs that have numerous biological roles. They maintain the homeostatic balance of body fluids by removing waste out of body. Chronic Kidney disease (CKD) or Chronic Renal Failure (CRF) refers to an irreversible deterioration in renal function, which develops over a period of years. The conventional approach of management includes dialysis and renal transplantation, which are involving the high costs and complexity so very few patients are able to obtain adequate treatment for kidney disorders because of financial limitation. Therefore, exploration of a safe and alternative therapy is needed, which proves to be helpful in reducing the requirement of dialysis and in postponing the renal transplantation. The use of herbal drugs for the prevention and treatment of various diseases is constantly developing throughout the world. In present study a case was taken of chronic kidney disease with chronic nephritis. He was Punarnava swaras daily with orally. This treatment approach has significantly improved condition of patient eliminating dialysis requirement.
Keywords *Chronic Kidney Disease; Punarnava Swaras*

1. Introduction

Chronic Kidney Disorders have always remained a major area of concern for physicians since a long time. It is the 9th leading cause of death in United States. Incidences of kidney diseases leading to kidney failure are increasing day by day. Some people develop irreversible kidney disease called Chronic Renal Failure (CRF) or Chronic Kidney Disease

(CKD), the most common type of kidney disease today which can most of time terminate into final stage called End Stage Renal Disease (ESRD) [2].

CKD affects about 175 to 200 millions in India (roughly 17.4%), says the latest study by the Indian Society of Nephrology and University of Harvard. Nearly 18,000-20,000 patients (10% of new ESRD cases) in India get renal replacement therapy. It is estimated that over 10% of the adult population in developed countries have some degree of CKD. CKD is a progressive and irreversible deterioration of the renal excretory function that results in implementation of renal replacement therapy in the form of dialysis or renal transplant, which may also lead to death. CKD poses a growing problem to society as the incidence of the disease increases at an annual rate of 8% [1].

The treatment of Chronic Kidney Disorders consists of treatment of the underlying cause if possible, and other symptoms, liquid and diet control, cessation of smoking, use of various pharmacological drugs. But with progressive end-stage disease, restoration of kidney function can only be possible with dialysis or a kidney transplant. So, the treatment modalities are very costly and may not be affordable by all.

Ayurveda is ancient traditional approach of medicine in India. It can complement with western medicines. Ayurveda treatments are based on balance of body, mind and spirit. They work on principles of tridosha. The advantage of using Ayurvedic medicines in CKD is that in most patients, the kidney damage can be either partly or fully reversed, the frequency of dialysis can be reduced, and the increased risk of death can be significantly reduced. Thus, Ayurvedic medicines have the potential for an important therapeutic contribution in all the stages of this condition [3].

2. Aims and Objective

To Evaluate Role of Punarnava as a Single Drug Treatment for Chronic Kidney Disease

2.1. Drug Profile

Punarnava [5]

Family - Punarnava kula, [Nyctaginaceae]
Latin Name - Boerhavia diffussa. Linn.
Habitate - All over India
Constituents - Alkaloid (Punarnavine)

Properties and Action [4]

Rasa: Madhura, Tikta, Kashay
Virya: Ushana
Vipaka: Madhura
Karma: Anulomana, sothahara

2.2. A Case Study

A case detail is taken from Department of Kayachikitsa, Dr. D.Y. Patil College of Ayurved and Research Institute & Hospital Nerul Navi Mumbai, India. The patient is male and having 49 years of

age and residing at Kalyan, Occupation- Business Thane, Maharashtra having OPD reg. no. 53311/13 and IPD Reg. no. 9983/13. He was diagnosed with CKD in 2012.

C / o Oliguria, weakness, since 2012 (on and off)

Loss of appetite,
Oedema,
Dyspnoea.

H/O Chronic Alcoholic since last 10 years

H/O Past Illness-Patient was all right 3 years ago but suddenly he was started to developed generalized oedema with Oligouria. For same he went to Inlaks and Budhrani Hospital, Koregaon, Pune, and Maharashtra but not got relief and he was advised for regular renal dialysis, but patient refused for same and came to us for Ayurvedic treatment.

F/H/O- Not Significant

O/E-

Nadi-80/min, Manduk gati
Mal-Malavshtambha
Mutra-Alpa-Mutrata, Aavil Varna
Jiva - Saam
Shabda - Kshin
Sparsha - Anushna
Drukh - Netronmilin
Akruti - Madhyam

BP-140/90 Mm/Hg

S/E-
RS- AEBE, Clear
CVS-S1, S2- NAD
CNS-Giddiness

P/A- Soft
L0, S0, K0
No GTR

Dushta Shrotas Parikshan

1.Medovaha- Vruka Shoth (USG)
2.Mutravaha- Alpa Mutrata, Avil Varna

Vyadhi Vyavachedak

1.Pandu
2.Hrudrog
3.Shoth

4.Madhumeha
5.Vruka shoth janya vicar

Vyadhi Vinishchaya- Vruka shoth janya vicar (CRD)

Treatment Given

Punarnava swaras- 10 ml BD with Water –Daily –Orally from December 2013 to May-14.

3. Results

The laboratory diagnostic tests, radio-sonological investigation had confirmed the presence of chronic kidney disease. Patient was advised to take Punarnava Swaras 10 ml BD with water and patient renal function was assessed every 7th day.

3.1. Sign and Symptoms

Sign and Symptoms	Initial Value	After 6 Month Treatment
Urine output (ml)	400	900
Weakness	++	+
Loss of Appetite	+++	+
Oedema	++	0
B.P.(mmHg)	160/100	142/90
Dyspnoea	+	0

3.2. Laboratory Tests

Laboratory investigation		Initial Value	After 6 Month Treatment
Hb (13.5 - 17.5 g/dL)		12.8	13.8
S.Creatinine (0.2 - 2.2 mg/dl)		4.81	1.2
Bl.Urea (7–21 mg/dL)		84.06	38
Urine Albumin		++	Trace
WBC(4000-11000 cmm)		10000	6200
RBC in Urine (0 – 2/hpf)		5-6	1-2
S. Electrolytes (In mM / L)	S. Na (142.9 ± 1.9)	176.0	140
	S. K^+ (4.2 ± 0.3†)	6.4	3.0
	S. Cl (104.6 ± 1.8†)	110.0	76.0

3.3. USG (Abdomen + Pelvis)

(i) 12th Aug 13- Shows Raised Parenchymal echogenicity of both kidney S/o Bilateral Paranchymal diseases (CKD).

(ii) During the treatment on 24th March 2014 Shows –Significant Parenchymal echogenicity decreased. B/L Kidney is in normal Size and Shape.

4. Discussion

The Punarnava Swaras treatment of CKD is based on three principles; treating the damage kidneys, treating the body tissues (dhatus) which make up the kidneys and treating the known cause. As mentioned earlier, CKD is microvessels and developing microangiopathy. *Vata* is responsible for degeneration of the structure of the kidney [3]. The kidneys are made up of principally the "Rakta" and "Meda" dhatus. Treating these two dhatus imbalance is also an effective way to treat the kidneys. So the herbal drugs which can modulate these dhatus are effective in kidneys disease.

According to Ayurvedic principles of management of the disease, tissue damage can be prevented and repaired by *Rasayana* for *Mutravaha Srotas* drugs because they have the capability to improve qualities of tissues and hence increase resistance of the tissues. It increases urine filtration by causing Rakta bhar vridhi whereby it acts as shothaghna and overcome muttrakrichha. On the other hand, blockage can be removed by *Lekhana* action having scraping effect on blocked channels. It is good dieresis accompanied by increase sodium excretion. Ethyle chloride extract showed anti-inflammatort activity in CKD. Laboratory tests showed good improvement even within a six month and serum creatinine, blood urea and albuminuria were reduced to good extent. The patient had shown great relief in all the signs and symptoms.

Punarnava Swaras revitalizes kidneys weakened by vata, calms pitta inflammations, and reduces swelling due to excess kapha [4]. Punarnava is found to enhance the bioavailability of structurally and therapeutically diverse drugs, possibly by modulating membrane dynamics with cytoskeletal function, resulting in an increase in the small intestine absorptive surface, thus assisting efficient permeation through the epithelial barrier so it imparts bioavailability enhancing effect to the Punarnava Swaras.

5. Conclusion

In this single drug study, the patient has shown encouraging results during the management of Chronic Kidney Diseases with Punarnava swaras treatments. The improvement obtained may be attributed to the disease modifying effect of given Ayurvedic treatment by means of its *Rasayana* (Punarnava Swaras). These significantly correct uremia, which is the cardinal feature of CRF, and improve the renal function which is evident by reduction in serum creatinine and other blood parameters. In addition, the treatments also improve the general condition of the patient. With this treatment requirement of dialysis is eliminated in patient. Currently patient is living healthy and happy life. This treatment approach is a safe and effective alternative in case of CRF. In a difficult condition where conventional treatments are beyond the financial capacities of a common man of the country, this therapy can be hopeful and promising.

Acknowledgement

We express deep gratitude towards our colleagues who helped us directly or indirectly for completing this research work. We are thankful to our Dean, Dr. Bhadlikar & D.Y. Patil University, for motivation & giving opportunity to serve the community. Last but not least we are thankful to medical staff, paramedical staff and patients attending to Kayachikitsa department without them we may not conclude this work.

References

[1] Jose, M.L., Carlos, M.S., Ana, B.R., and Francisco, J.L. *Common Pathophysiological Mechanisms of Chronic Kidney Disease: Therapeutic Perspectives.* Pharmacology & Therapeutics. 2010. 128; 61-81.

[2] U.S. Renal Data System, USRDS, 2005: Annual Data Report: Atlas of End-Stage Renal Disease in the United States. Bethesda, MD: National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases [updated in 2005; cited in 2012]. Available from: http://www.usrds.org/ atlas.htm.

[3] Patel, M.V., Gupta, S.N., and Patel, N.G. *Effects of Ayurvedic Treatment on 100 Patients of Chronic Renal Failure Other than Diabetic Nephropathy*. Ayu. 2011. 32 (Suppl 4) 483-486.

[4] Kulkarni, Y.R., Apte, B.K., Kulkarni, P.H., and Patil, R.R. *Evaluation of Nephro-Protective and Anti Nephro Toxic Properties of Rakta Punarnava Roots (Boerhaavia Diffusa, L.) Gokshur Fruits (Tribulus Terrestris, L.) In Drug Induced Nephrotoxicity.* Nanotechnology. 2009. 2 (3) 615-620.

[5] Dash, B., 1991: *Materia Medica of Ayurveda* B. New Delhi: Jain Publishers.

[6] Prashanth, G.S., Baghel, M.S., Ravishankar, B., Gupta, S.N., and Mehta, M.P. *A Clinical Comparative Study of the Management of Chronic Renal Failure with Punarnavadi Compound.* Ayu. 2010. 31 (Suppl 2) 185-192.